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THE
Grounds of Phyfick
EXAMINED:
AND THE
REASONS
OF THE
ABUSES

Prov'd to be different, from what
have been ufually assign'd.

IN
ANSWER to a LETTER
FROM

The Ingenious Dr. G—.
Paxton.

By. P. P. M. D.

L O N D O N:

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IN
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TO A
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The Ingenious Dr. G—

S I R,

TH E tender Concern for the deplorable State of the Sick, so elegantly express'd in yours (whose Calamities, as You in the most moving Words seem to intimate, are often encreased by the very Helps that are used for their Relief) did not, I must confess, a little affect me: But your Reasons for persuading me to attempt the discovery of the Causes, and the proposing Remedies for

the removing them, did marvellously surprise me, in that I was of the Opinion You had been too well acquainted with my Infirmities to believe me qualified for such an Undertaking, and in truth too much my Friend to entice me to intermeddle with what in likelihood must make me Enemies.

However moved by your Friendship or Reasons I began to turn my Thoughts to these Matters, which soon appear'd loaded with so many Difficulties and encompass'd with so many Dangers, as did almost deter me from the prosecution of them: For I immediately perceiv'd this would naturally lead me into an Examination of the whole *Grounds of Physick*, and the shewing the Uncertainties and Mischiefs that must have arose from the Writing, and Treating of what are called *Diseases, under certain Kinds or Families*; and as a Consequent to that, the ascertaining Forms, Methods and Medicines for their Cures; and not only this, but the shewing the Danger of the fashionable Usage of multiplying Medicines, and the Vanity of confiding in Receipts; and these things being so opposite to the received Opinions, and confirm'd Practices of most Men, I am apprehensive, may draw upon me some Censure; because Men are naturally

naturally fond of their own Opinions, as being persuaded of their Truth, and are therefore prone to reprove if not reproach him who shall dare to question those they have espoused; (for which of Men would be thought to have continued in Error) Besides Multitudes having subsisted, if not been enriched, by the means of the Methods that are here censured, it is not unlikely but that some amongst them, may dislike what is here offered, upon the Score it is inconsistent with what hath been their Gain.

However encourag'd by your persuasions, and enclined by a charitable Hope, that the most and best of Men will not despise or disprove plain Truths, altho' they are neither supported by Authorities, confirm'd by Usages, nor recommended by an illustrious Parentage; I have adventured to launch out amongst these Rocks and Shelves, rather than to neglect so useful altho' so dangerous an Attempt.

What, Sir, is farther contain'd in Yours may be consider'd under one of these two Heads, the First of which concerns the *Uncertainty*, the Second the *Expence of Physick* both of which, as I humbly conceive, admit of Remedies; to the last of these that most *Illustrious Society, the College of Physicians* have

have made some Applications, by erecting their Dispensaries ; but with all submission to that August Community, I am of the Opinion, that their Expedient cannot be effectual ; by reason the Shops they have furnish'd for so charitable an End, as the supplying the Poor and Others, with Medicines at very cheap and under Rates, are too few for any general use : Nor can they be in my weak Judgment, of any long Continuance, because notwithstanding the College abounds in learned and generous Members, which may prefer *Charity to Gain*, yet no account of time I think, will yield one single Instance, where a Charity that hath no other footing than the Will of Men, could preserve it self to any marvellous Age ; in that Men in process of time will have different Ends and Aims, some of which not always being consistent with such Charitable Designs, they gradually and naturally moulder and decay. It is true *some Charities* have continued for many Ages, but then it hath been when they have had such Endowments, as were not to be destroy'd by the Will or Neglect of particular Men ; as appears by the Continuance of diverse Hospitals, &c. in all which, the Revenues have been so settled, that they cannot be withdrawn, and the Manage-

Management of them committed to such persons, whose Interest it is to support them; the Law likewise taking care to preserve them: Whereas had they been left to the Will or Discretion of particular Men, it is not likely they would have been preserv'd for any considerable time; because having nothing in their Natures, whereby to cement the Members together, nor to oblige them to endeavour their Support, it is not likely they could continue (the Minds, Aims, and Designs of Men, being changeable). It is true some common Interest, or some lasting Gain, might link them together; but the First of these cannot rationally be suppos'd to hold for any time amongst so many different Men, and the Last cannot be fairly practis'd; for should that be permitted in the Dispensaries, they must become useless; in that the Abuses that have been condemned in the Apothecaries, and as a Remedy against which these Shops have been erected, would naturally in time be practis'd there.

It must, Sir, be acknowledg'd that the present Indignation of the College against Apothecaries, is not unjustly grounded, for it is most notorious that Body of Men do too often invade what the Law declares to be the province of Physicians: But then
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that somewhat may be offer'd in Mitigation of this their Crime, (for it is not to be excus'd) Physicians may be pleas'd to consider that this is not a Practice singular *to Them*, but is what is done in most other Professions, which are likewise invaded by Persons not fully qualified for them; and therefore this practice does not arise from any Baseness or Ingratitude peculiar to that Society, but from the very Nature of Men who will endeavour to advance their own Fortune, by the Employments or Professions they follow. This I think will clearly appear, if we take but a View of the State of Men, in any flourishing City, Country, or Kingdom; for in all such we may observe, as Wealth or Money increases, *Vanities will*: (It is true these have very different Appearances, in that they are made agreeable to the Spirit, Genius, Country, Government or Circumstances of different People); and that these Vanities may be the better supported, and indeed multiplied, new Arts or Employments are invented, or old Ones alter'd or improv'd, or perhaps branch'd out or divided; for thereby a greater Number of People are employ'd: Thus we may observe Arts and Professions have multiply'd, and Trades have encreas'd in this our *Britain*, and indeed

indeed in all other Countries in *Europe*, (for where Money is to be got Men will be); and each person endeavouring to provide for himself and Family, in the Trade, Art or profession he follows, will certainly busie his Thoughts in finding out means whereby to do it: It is from this Reason, that such Arts and Professions that are of real use to Mankind, as well as those that are only employ'd about their *Vanities*, may always be observ'd by time, to become burthen'd with a multitude of Unnecessaries and Superfluities; in that without those, such Numbers of people that apply themselves to them, could not subsist, or at least could not raise Estates for themselves and their Posterities, as it is certain most Men endeavour to do. It is true these Unnecessaries in useful Arts and Professions being for the most part gradually and insensibly introduced, are so wrought in, and become so entirely intermixed with what is useful, that they are not easily observ'd, nor readily distinguish'd: And what seems to contribute to their thus Concealment, is, that such Arts as are only employ'd about the *Vanities of Men*, in their very Nature, permit or rather require *continual Additions or Alterations* (by reason it is by such they are the more esteem'd and valu'd) whereby Men

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become enclined to conclude , that the same may be practis'd in *Arts of real Use, such as Physick, &c.* and it is by the introducing of these Unnecessaries, that Medicine is become so expensive.

But the comprehending the Reasons of these things in particular, is somewhat difficult, and the explaining them would be too tedious for a Letter, and indeed not altogether necessary here, and therefore should be pass'd over ; However that I may not seem to have hinted at what is not to be prov'd, I shall give a brief Taste of them, in one or two short Instances, that so Men may see these Abuses are not singular to Physick.

Divinity, as it is founded upon the Christian Religion, should teach such Duties as the Gospel directs, *viz.* Humility, Mercy, all Gentleness, Peace, Love, long Suffering, Meekness, forbearing and forgiving each other ; since the time that Civil Rights, such as Honours, Dignities, Preferments, or Estates have been adjoin'd to it, is become a Profession of Profit ; and thereby has permitted of some Extra-essentials by which Men are distinguish'd, that are to be admitted into such Honours, or Preferments ; and by that means have open'd a Door in some Countries for Pride, Cruelty, and Persecution,

tion, for without such *Shiboleths*, *Sects* could not have so easily been form'd, or at least would not have been so uncharitable to each other as now they are found: Whereas since that time Men having these temporary Advantages in open View, do sometimes teach or connive at such Doctrines or Practices, as seem not to be literally warranted in the sacred Text; which I think will appear if we do but consider that since the Conversion of the Great Constantine, that the Civil Powers have been Christian, or at least favour'd Christianity, Christians have been more divided into *Sects* or *Parties*, or at least those have been more im-bittered against each other, than they were before that glorious time: Because now which of *Them* gets into Authority, being desirous to share the Honours or Preferments amongst themselves only, will therefore endeavour to exclude the Others; and the better to perform this, have at some times and in some Countries used such Methods as are not perfectly agreeable to Christian Doctrines; as may be instanced in *France*, and in those Catholick Countries where the Inquisition is establish'd: For notwithstanding before *Constantine's* time, Christians might disagree in the explaining some Religious Niceties or Obscurities that related

either to *Faith* or *Worship*, yet such their Disagreements were not carry'd with that Hatred or Heat as since; for they did not make such Disputes the occasions for bringing Sufferings to the Bodies, or Ruines to the Fortunes of such as dissented from them; which appears in that they then could have no Advantage by it, neither had they Power to do it; Articles of Faith and Doctrine were not multiplied, nor terms of Communion injoyn'd, whereby to distinguish Parties; unqualified persons did not so industriously labour to be admitted into the sacred Offices; for there was nothing to allure them, to enter into those Charges: Whereas now that sacred Office, being looked upon as a Profession by which Men are to raise their Fortunes, it is too often sought after for that purpose; and the Professours have greatly multiplied, and the Extra-essentials in some Churches have marvellously encreas'd.

The Laws of particular Countries, that should be the Boundaries of Civil Rights, and should protect Men against Injustice and Oppression, are from the same Reason become a Grievance; for since it is become a Profession by which Men are to raise their Fortunes it is made more perplex'd,
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tedious and expensive, which appears by the dilatoriness and length of its Proceedings; the Judgments of its Tribunals being not always decisive, and thereby an Opportunity of renewing Suits, and removing them from Court to Court, the admitting of picking Faults, and finding Flaws and Errors in its Methods, and so making the poor Client suffer for the Neglect or Ignorance of his Lawyer; the multiplying and enlarging of all manner of Deeds and Settlements; the exorbitant Fees of its Practitioners, &c. by which means Men are sometimes inclin'd rather to suffer in *their Rights* than to be undone by a tedious and uncertain Recovery of them: And as these things have encreas'd, so have the Number of its Professours; from whence Law Suits have been multiplied, and industriously prolong'd: For in this and all other Professions, as the Numbers of its Practisers encrease, its Abuses must multiply; and on the contrary as such multiply, Practisers will encrease.

It is true, the Extra-essentials or superfluities wherewith either *Divinity* or *Law* are now burthened, from the Reasons alledged, are not of so fatal or dismal a Consequence, as those that are brought into Physick; by
Reason

Reason in these there is for the most part time and leisure for Men to consider, and if they please to avoid them; besides they do not immediately regard the Lives of Men, and then there is somewhat to appeal to, *viz.* the sacred Text in the One, and the known Law in the Other, whereby to inform themselves, and so prevent the Mischiefs; nay farther the Legislature find it expedient to take some care to prevent or remove Corruptions in *these* when become grievous; whereas in *Physick* it is directly otherwise, for in that, such is the wretched State of the *Sick*, that they are usually incapacitated to distinguish between what is necessary and useful, and what only superfluous and dangerous; neither have they any thing farther than the Opinions or Judgment of the Professours to appeal to whereby to do it, and those frequently being very different, must therefore be uncertain; besides the Law doth not seem to have made sufficient Provision against indirect Practises, for which reason mercenary Pretenders and ignorant Empiricks, stand in no fear of Punishment for their Miscarriages; whether the remissness of our Laws in this particular proceed from the infeasibility of a proof, (which must be acknowledg'd is extremely difficult; and to punish Men for what admits

admits of none, would be unrighteous if not cruel;) or whether it proceeds from the want of a Criterion by which the reasonableness or righteousness of Mens proceedings in this Art are to be tried, or from what other Reasons, I shall not take upon me to determine, but shall return to what more immediately relates to what is contained in yours, *viz.* the Causes of the Uncertainty and Expence of Physick.

But, Sir, notwithstanding in yours you have divided these two, as supposing them in their Natures different, yet I in considering them, have partly departed from that your Method; by reason when I began seriously to weigh them, I plainly perceived, that the Expence as complained of, was mostly occasion'd by the Uncertainty: Wherefore I have rather chose to examine them partly together, than to separate them perfectly, as believing it somewhat the easier performance. But before I proceed in that, I must beg of You and my Reader to take notice of *these two general*, and as I think *certain Truths*.

First, That Men that are unversed, or unskilled in Arts, Professions or Sciences, take their *Notions or Opinions concerning the Nature of such*, from what is said, writ or taught, by those who profess them, or are thought

thought to understand them: This I think is plain, because there can be no other Means, whereby they can form such.

The *Second* is, that when Men have once establish'd such Notions, or Opinions, they make those the *Standards or Criteria*s, by which they judge of proceedings in such Arts or Professions; this I think is without contradiction, because they have nothing else whereby to do it: For it matters not whether such their Notions or Opinions are right or not, for it is certain they will believe them to be so untill convinced of the Contrary: Nor is it of any moment to our Consideration, whether such their Notions, or Opinions are adæquate, or exactly agreeable to what the Professours teach.

But to illustrate these, that they may be the readier apply'd; it is certain, so long as the Philosophy of *Aristotle* was only read in the publick Schools of *Europe*, that learned Men in their explaining the *Phænomena* of Nature, had always recourse to his Hypotheses; the very Unletter'd part of Mankind had by these Themes their Minds so fill'd with rude and imperfect Notions of his Elements, that they would in their Discourses about Natural Things, have some kind of recourse to his Principles, (altho' in
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a very confused and imperfect manner) the same may be observ'd concerning *Physick*; for the Doctrines of the Four Humours, first Qualities and *distinct Kinds or Species* of Diseases having been what was taught in the Schools, became from that very Reason, the very Standard, by which the very unlearned, talk'd and judg'd of *the Practice of Physick*.

But to proceed, the Uncertainty in the *Practice of Physick*, seems in great measure to have been produced, and continued by means of the Uncertainty in the Theories of it: For the Gentlemen that have applied themselves to this *Faculty* usually having their Minds imbued with these Theories; as they have been taught in the *Schools*, before they enter upon *Practice*, they regulate their Practice by these Theories, which are suppos'd to be most true, in that they are publickly taught: Besides the very Systems and Institutions that have been writ for this purpose, have been plainly grounded upon and adjusted to these Theories; by which means the tender Minds of the *young Students*, have been so deeply stained by these early Prejudices, that it hath been difficult, in their riper Years to remove them.

Pardon me, dear Sir, if from an impartial Consideration of these things, I am carried with a little warmth to express my wonder at the amazing Conduct of the *Learned*, that they should so vainly ground an Art, that so nearly relates to their own Subsistence, (as Physick must be acknowledged to do) upon the wanton Amusement of an useless, and trifling Speculation; For methinks it looks like a daring Vanity in Men, to imagine themselves thus capable by the strength of their own Wisdom, to understand the Nature of things; or rather to believe themselves endued with such a God-like Power, as to be able to turn the Nature of things to their Thoughts; and that methinks they seem to do, when they thus ground things of *Use and Practice*, upon their own Whimsies, and neglect the pursuing such means, as would lead them into an useful and more certain Knowledge. Excuse me, learned Sir, if I am mistaken, but I am of the Opinion, (and that to the best of my Judgment, is founded upon what I have Collected, from the *Works of the Learned*, which have been publish'd upon this Subject) *that Physick*, hath had that Misfortune as to be grounded upon very precarious and unprov'd Principles; a thing methinks somewhat *Surprising*, that
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learned Men should thus vainly intermix if not entirely found an Art, that concerns their own Lives, upon what is but uncertain, when in most if not all other things of practice and use, they dare not do it: Nay and what renders it the more amazing, when such learned Persons, who dedicate their Hours to Study, may be easily convinced of the Uncertainty if not Falsity, of such Principles upon which it hath been founded, by but comparing the several Treatises writ upon these Subjects; for in such the Authors may sometimes be observ'd to have shifted and chang'd their Opinions, however to have greatly differ'd and disagree'd amongst themselves about them. I shall not enter into *a detail of this Matter*, the Fact being too notorious to require the producing many particular Instances; besides to do that would swell this Letter into a voluminous Bulk: However that I may not seem perfectly to neglect what I have here laid down, I will briefly take notice, how that when Physick came to be publickly profess'd in the Schools of *Europe*, it became gradually intermix'd with the Philosophy that was there taught; and accordingly had Theories rais'd, and Systems form'd, that were grounded upon, or at least agreeable to *that* Philosophy.

And these continued in a flourishing Esteem, until Reasons of State founded upon the then Circumstances of Europe, or Alterations in Religion or Government, did gradually bring in, a sort of Lessening, and disesteem of that sort of Learning, upon which such Theories were evidently founded; (for it is to be noted, the peripatetic Doctrines had not only intermixed with *Physick*, but the Notional or Logical part with Divinity also) from these or such like Reasons, several learned Men in the last Age became enclined or encourag'd to discover diverse Truths, that were before conceal'd by the favour of that kind of Learning; for instance, in Religion Men would no longer be satisfied by Metaphysical or Scholastical Niceties, but would appeal to the plain Letter of the *Sacred Text*, to determine Controversies, &c. It is true the Alterations in the *Theories of Physick*, were made by slower Steps, (perhaps as not so immediately relating, as Religion did, to the State or Fate of Civil Government) yet such likewise did gradually ensue: For learned Men begin to question the Truth of some of the Peripatetic Doctrines, and have confidence to appeal to Nature, and not to *Aristotle*, for the decision of their Disputes. These things thus beginning in the Root, (I understand the

the Natural Philosophy of the Schools,) did in time spread and so gradually ascended into the Branch, I mean the *Physick*; for Men begin to search and examine into the Nature of Human Bodies, and seem not entirely satisfied with the explaining the Nature of Diseases by the helps of the celebrated Humours, first Qualities, &c. as they had formerly been; the very Professours who were to teach and maintain the *Establish'd Doctrines*, begin to multiply Distinctions, refine upon them, and so differently to expound the Writings of their Masters, (from whom they were not to depart) as too plainly shew'd they were not satisfied with them, or at least were puzzled how to reconcile them: The Chymists question, and oppose their Principles, and ridicule and expose their Practices; but these Chymists did publish their pretended Discoveries and Reformatations, in such dark insignificant and enigmatical terms, and fill'd their Writings with so many mysterious Vanities, ridiculous Boastings, and unbecoming Railings, as plainly shew'd either that they did not understand what they pretend to teach, or that they would not discover what they would be thought to explain; for so notorious were their Vanities in Talking and Writing, that they gave a prejudice to the
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very Art they would have introduced ; which therefore not prevailing, the former continued for some time longer in full reputation in the Schools, (altho' it admitted of some Alterations) until it was supplanted by the means of *the Harveian* and some other Experiments, and Anatomical Discoveries.

But notwithstanding a general Disesteem gradually fell upon *the old Philosophy*, that is, so far as it related to *Existences*, or to the general Nature of *Corporeal Beings*, (in which part it hath manifestly given place to the Atomical or rather to Experimental,) yet I say notwithstanding that, learned Men would not depart from the Logical or Notional part of that Philosophy, for they continued to write and treat of the Nature of things, according to their old Forms. By which means altho' the old Theories of Physick, that were plainly derived from that Philosophy, have been discontinued, in that they were repugnant to the *Circulation of the blood*, (which was too well proved to be denied) ; yet Physicians continued to treat of that disordered State of a Human Body, *which is call'd a Disease, under certain kinds, &c.* (a method perfectly begun, and entirely founded upon that Philosophy) and have also continued to adjust
Methods

Methods and Forms of Medicines agreeable to such their manner of Writing: And by their thus persevering in that old Form, they seem methinks to own, that all such Diseases as they have ranked under the *same kind*, do partake of the *same Nature*; and yet have neither determined what this Nature is, nor how to be distinguish'd or known. I would not be misunderstood upon this nice Subject; I do not in this Letter or the former Essay, entirely disprove the common Method of writing of Diseases; for I do not deny where the Symptoms, Signs or Appearances of a Disease, are exactly the same; that is, that the Alterations, or Disorders, whether of Blood, Spirits or separate Juices, are observ'd exactly to agree, but that the same Methods and Intentions of Cure are likewise to be persued; and that such Cases, may be justly esteem'd and called the same Disease; because particulars ought (for the readier communicating Thoughts) to be compris'd under one general and common Name. But what I intend is, that Men ought not to mislead themselves by the use of this common Word, and apply it to denote Symptoms that are not in their full Circumstances alike; for the common Name ought to be taken to express the Symptoms; and

and therefore to use the Word, where such are not alike, is only to deceive others ; and this, as I apprehend, is what hath been so usually done by several who have writ of particular Diseases.

But however, these new Discoveries in a Human Body, viz. the *Harveian*, &c. oblig'd Physicians to have recourse to new Hypotheses, whereby to solve the *Phænomena* of Diseases, and accordingly a Number of these were daily broach'd ; But the Authors in the contriving such, seeming to have had more regard to the Beauty and Concinnity of their own Inventions, than to the real and genuine Nature of Things, such have usually been but of a short Continuance : This usage of forming Hypotheses began upon the declining Esteem of the old Philosophy ; for learned Men being then at liberty, of enquiring and writing what they pleas'd, (which they could not with any reputation do before) they fell into that usage of inventing Hypotheses, which were for the most part favourably receiv'd, (for Men were then fond of Novelties) and so these became the Occasion of raising very often wonderful Reputations to several of the Authors, from which Reason they continually multiplied ; and notwithstanding none of *These* that were form'd for explaining

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ing the Nature of Diseases, flourish'd in any great Esteem, for any considerable time, perhaps rarely out-lived the Author, (which if Men would have but consider'd, might have given them some insight into their Uncertainty): Yet such hath been their fate, that several of these have introduced a new set of Medicines, which be sure were befitted to their Natures, and those being recommended by the learned and ingenious Author, have been so often tried by the believing Practitioner; from whence a Multitude of inconveniencies must have entered. Sir, I know you are too well versed in these Studies, to be a Stranger to such Truths, wherefore I guess it needless to produce many particular Instances to confirm them; however that I may not seem entirely to neglect what you may expect, or the Reader doubt, I shall request of you and him, but to consider of the fate of two that have made the greatest noise lately in *Europe*, I mean that of *Dr. Willis*, and the other of *De la Boe Sylvius*.

And as thus, Sir, the great diversity of Theories and the Number of differing Hypotheses, that have been used and esteem'd at different Times and Countries, (by which the practice of Physick hath been mostly directed) do's, as I think undeniably

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prove its former Uncertainty : So Physicians having hitherto treated of Diseases by whole Sale, that is, ranking and marshalling them into certain *Sorts, Kinds* or *Families*, and accordingly considering them (or at least by their Writings persuading others that they do so) as if all of the *same Family, Sort* or *Kind*, did partake of the same common and specifick Nature ; have, as I think, been the unhappy Occasion of introducing that marvellous Expence in the remedying them ; and likewise of letting in all sorts of Men into the Practice of Physick : By which means the Sick have sometimes been endangered ; and if by the happiness of their Constitutions they have escap'd , their Diseases have sometimes been prolong'd and their Expences encreas'd.

Pardon my Error, Sir, if I am mistaken ; for I cannot but think, that some *Physicians*, by thus writing and treating of Diseases, seem to insinuate, as if they were persuaded, that they entered into the Body of Man as the Evil Spirits did at the coming of our Saviour ; or that they imagined them to be somewhat of *separate Essences* , or I know not what *Substantial Forms*, and as such enter'd and possess'd the Body of Man : And therefore if our Religion did
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not forbid, we might like the Romans dedicate Temples, and worship them: For in very truth we have seemed to do somewhat, not much unlike this, in that *Exorcisms, Charms or Magick*, have been used to cure, transplant or rather remove, or cast them out. The Consideration of these things, hath enclin'd me to think, that if the Learned who have turn'd their Studies to Physick, will but lay their Hands upon their Hearts, they will soon perceive, that they themselves, or their Predecessors, have been the unhappy Occasions of all the Mischiefs and Abuses in the Practice of it; for they by thus writing, and treating Diseases as if all of the same kind partaked of the same Nature, (and yet have not ascertain'd the Symptoms by which they are always to be known) and accordingly having directed Methods, and prescrib'd the very Forms and Medicines that are to be used: They I say, have by that Means so prostituted and debased that useful Art, that even the meanest of Men, may according to *such Principles*, safely and successfully practice it. It being indeed but to little purpose for ingenious Men so industriously to apply themselves to the Knowledge of the Fabrick of a Human Body, or so heedfully to attend to the

Operation of Medicines, if *Diseases and their Cures* may be so easily known without such helps. But these are not the only Mischiefs that have enter'd at this Door, for the Generality of Men are so prejudiced and possess'd by *these Notions of Diseases, and their common Natures* that they too often become Physicians to themselves; as being from these Reasons, persuaded that they understand their own Diseases, and their Remedies; and when startled at some difficulty, or affrighted at some danger, that they apply to a Physician, it is usually either that they believe the Case complicated, that is, that they labour under more than one Disease, or else that he hath some *Nostrum* or wonderful Secret, that performs Miracles to it; rarely considering, that the business of a Physician is to attend Nature, and make his Applications, as the circumstance of the Diseased at that time require. Nay farther, so many have been the Misfortunes that have proceeded from hence, that even Persons of Quality or Estates that will not for the State of the thing, be without an attending Physician; yet such Persons are so prejudic'd, that they expect regular and methodical Forms, in their Diseases, of the reasonableness of which they will often judge; and which there-

therefore if not dress'd according to the Fashion of the Age in pompous Processes, variety of Prescriptions, and unnecessary Applications, which Books or usage hath recommended as useful in that Disease, (for it matters not whether they are in that particular Case) he shall be sure to be censured; and if the Event is not successful, he shall be condemn'd of Ignorance or Neglect. For it is from this source, that the so usual and proverbial Reproach, too often flung upon Physicians (upon insuccesses) of their not having understood the Disease, seems to be derived: Mens Minds being so entirely fill'd with the Notion, that particular Diseases are to be cast out, or cured by particular Medicines; and yet (which is wonderful) have not agreed in the Nature of Diseases; nor in the certain Medicines by which they are always to be remedied.

These, Sir, appear to me the unhappy Occasions of letting in such a shoal of them into the Practice of the useful Art of Physick, Quacking and Ale-keeping being by these means become the last Employments, to which Men of decay'd Fortunes apply themselves as the best Expedients to get Bread: And a multitude of unqualified Men having from these Reasons, an Oppor-

Opportunity of entring, or pretending to a Skill, in this Profession, these will naturally turn their Thoughts to persue such Methods in the practice of it, as may be most advantageous to them, (for to get a Subsistence, if not to enlarge their Fortunes, seems to be the only Motive that induces them to it); and accordingly these Men, partly led into it by their Ignorance, but more by their Gain, will labour to introduce a multitude of Medicines and Applications, as the most proper Methods whereby to do it: And this seems to be the plain Reasons why such who dispose of their own Medicines, do usually so industriously multiply them.

But notwithstanding a multitude of Pretenders, or even qualified Professours in any useful Faculty, must necessarily in time introduce abundance of unnecessaries and superfluities in it (by which I understand such things as not being necessary or essential for the End, might without any prejudice have been pretermitted) by reason such numbers could not subsist by it, were not such things introduced. Yet what hath administered the fairest pretences for the doing of this in the practice of Physick hath been, it is probable, from some of these three things: Either first from the multiplying and changing

ing Hypotheses, by which new sets of Medicines and new Forms and Methods, agreeable to such changable Opinions, have been introduced;

Or secondly, the vanity of ascribing I know not what miraculous Virtues to particular Plants, or Drugs, by which they must have a marvellous Power, (without considering the improbability of such their Virtues, from the fabrick of a Human Body) to respect only this or that *particular humour*, or this or that *Organ* or *Part*; for which they have been multiplied and compounded, that so every *Humour* or *Part* might be respected, when the Body is diseased;

Or thirdly, the explaining the Natures and Virtues of Plants and Medicines by first Qualities, and making standards and degrees of such Qualities that will admit of none that can be certain.

That Hypotheses to explain the *Phænomena* of Diseases have altered, and have been multiplied will evidently appear, if we do but consider these few notorious Instances, first how the *Galenical* Doctrines as taught in the Schools continued in full Reputation for a considerable time; altho' they admitted of some Refinings and Alterations, but those were not so much in their Principles as in their modes of Practice, and forms

forms of Medicines; and secondly, how this Doctrine was somewhat clouded, by the extravagant Whimsies of the first Chymists; but not entirely supplanted, until the *Harveian and some other Anatomical Discoveries*, were publish'd and entertain'd; for, *those* being inconsistent with the Principles of the Schools, Learned Men were oblig'd to have recourse to *others*, that were more agreeable to such discover'd Truths; and thirdly, how the laying aside of the Peripatetick Doctrines, had usher'd in a sort of liberty in Philosophizing, and had inclin'd Men to enquire into the *Nature of Corporeal Substances by making Experiments upon them*; the most fashionable Method of doing this, was by *Analysing such Substances by Fire*, by which means, most Substances would be reduced into several different Parts, which when thus divided, being observed to have a sort of Likeness or Resemblance, in some few common qualities, were therefore comprehended under, and called by one Common Name, and so were made or thought to be *Natural Principles*; thus that separated or produced Part, that was volatile or fugitive, was termed the Spirit; that which was inflammable, the Oil or Sulphur; that which was dissolvable the Salt; then there was the Earthy or fixed Part; and the Wa-
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try or moving one: And yet perhaps each of these *pretended Principles*, that were by this means produced out of different Substances, had likewise several other Qualities, whereby they were to be distinguish'd from each other; as appears from the difference that is to be observ'd in the Spirits, Oils, Salts, Earths and Waters, that are thus separated or made from differing Substances. And fourthly, how these Chymical Principles not entirely answering to the several *Phænomena* of Diseases, a new Doctrine of Fermentation was admitted, that was thought to be more agreeable to them; but that was too loosely contriv'd to continue; for it was not determin'd what this Fermentation was, nor how effected; so that it seem'd to have more regard to Words, than to the Nature of Things: This therefore was quickly supplanted by a more particular One, *viz.* of Salts and Acids. These are general, and so regard Principles. I shall not mention a numberless Number of Others, that only relate to Practices or to the whimsical Suppositions of Performances done by Agents that have no Existence but in the Brains of their Authors; these I think being sufficient to prove, that the Principles Men have used, and the Hypotheses they have formed, have been changeable and differing.

Secondly, That there hath been a prevailing vanity of ascribing Virtues to particular Plants or Drugs, to respect only this or that particular *Organ, Part or Humour*, appears without contradiction, in that large Catalogues of such are to be found in most of our Physick Books; nay our very Receipt Books are filled with such Compositions, witness that multiplicity of Prescriptions that are found there, some of which are to evacuate *Choler*, others *Phlegm, Melancholy, Water*, and others, *All*. Some are again endued with Vertues to purge from the *Head*; others *Breast, Liver, Spleen, Womb, &c.* The same may be observ'd concerning *Alteratives*, which likewise must have different Powers to affect different Parts. Methinks it is somewhat strange, that Men should so easily assent to the truth of these Opinions, which if naturally consider'd, will necessarily lead them to a belief of some of these Absurdities; for either they must admit, that a *Natural Substance, when employ'd as Medicine*, do's operate in a Magical or Supernatural way; and then they adjoin a Supernatural Effect to a Natural Agent, employed in a Natural way; which if admitted, to what purpose have they took such pains to ascertain, or determine the Natural Vertues of Plants? &c. And if they do not, why

why should they expect such Supernatural Effects from it :

Or they must suppose a Magnetical altho' a Natural Power, in the several Organs or Parts of a Humane Body, whereby they attract such particles of these specifick Plants, as are by Nature befitted to relieve them ; or a sort of knowledge in such Parts, to select such Corpuscles as are salubrious, when brought to them : (for as for any natural aptitude in the Organ to receive only such Particles, that can only regard Secretion or Nourishment) : The first of these is inconsistent with the Circulation of the Blood ; and the Second to the Nature of our Bodies, and indeed all Experience :

Or else they must suppose that the Minute parts of blind and unactive Matter when they are used as Medicine and receiv'd into our Bodies, do become animated, and have a power of directing themselves, which how absurd I leave to their own Considerations ; for it is plain, should they be only mov'd, by Impulse or Gravitation, they must stand in need of a better Guide, in the producing these stupendious Effects, than hath hitherto been discover'd ; however this methinks shews, they have no such Powers, in that they do not regularly produce such Effects.

Thirdly, That Men have hitherto used the explaining the Natures of Medicines by first Qualities, is most obvious, in that they have made degrees of such, and ascribed the Natures and Virtues of Plants to these Qualities, by being *Hot* or *Cold*, *Moist* or *Dry*, or so forth, in their several Degrees ; and notwithstanding that, have left us in uncertainty, how these different degrees in such Qualities are to be either measured, or discover'd.

Sir, whosoever will but give himself leisure impartially to consider of these things, will easily perceive how that the multiplying and so wonderfully compounding Medicines, hath been but a Natural Effect of these ; for a variety of Medicines recommended, by reason of such differing Hypotheses, will most assuredly induce unsettled Men to multiply them ; and especially since most of such have been so highly recommended, by their ingenious Authors. Particular Humours being to be alter'd or evacuated, or particular Organs or Parts respected, by particulars Plants or Medicines must necessarily induce Men to multiply and compound them ; when they supposed such differing Organs or Humours to be affected, as it is certain they did in most Diseases: The common and prevailing
Opinions,

Opinions, of the Alterations that were to be effected by the differing Degrees in first Qualities, would manifestly encline Men to the same usage: So that this dangerous and expensive Practice is not to be wonder'd at, if the Grounds or Reasons of such, are but thus consider'd.

Thus, Sir, I have cursorily consider'd the remote and immediate Causes of the Abuses that are so loudly exclaim'd against in the Practice of Physick, and have shew'd, how that some of *These* are but what are common, and in truth will happen to all useful Arts or Professions; in that all flourishing Governments will encourage their People some ways to employ themselves; and most Men endeavouring to advance themselves or Fortunes, by such Arts or Employments as they profess, will naturally study to introduce such things as may most effectually do it; for which reason a multitude of Unnecessaries and Superfluities will in time be introduced; for if that was not done, such Numbers could not subsist; and these Unnecessaries being blended and entirely intermixed with the Essentials, are not easily distinguish'd from them; but so are look'd upon and esteem'd as parts of such Arts, as I have already shew'd.

What, Sir, you bemoan in yours in that the Law frequently interposes in other Professions to prevent or remove Grievances when become enormous ; as you more particularly intimate in the several Regulations in judicial Proceedings, as also by the care it takes of Religion ; and yet hath not much regard to *Physick*, as if the Lives of Men were not as worthy the care of the Laws as our Souls or Estates: I humbly conceive that this doth not arise from the neglect of our Laws in securing our Persons ; because it is certain it hath taken the greatest care to secure our Bodies against Violence, in that it inflicts the severest Punishments upon such Transgressors ; but rather because of the difficulty in making a proof of such Mischiefs ; for it would certainly be thought, by all judicious Men, a hardship to inflict Punishments upon Men for Crimes that are not to be prov'd, being indeed what our Laws in no case permit ; besides supposing Men do suffer by *Physick*, it is by their own faults in taking of it : And since the Art hath been founded upon uncertainty, what is it the Law should establish? Does it seem reasonable to punish some and excuse others for the same Crime ; for as for the reasonableness of Methods or Medicines, who shall judge of them, or how are they to be tried ?

tried? If by Success no Man is secure; if by what hath been usually practiced, that is uncertain, by reason that hath been different; if by approv'd Methods that is hazardous, in that such have altered; if by the Operation of Medicines, that hath not been observ'd. Besides, how can it be expected that the Legislature should concern itself in what doth not relate to the Good or Welfare of the Community; for notwithstanding it becomes that Authority, to secure *our Persons* as well as our *Goods*; yet no care of that Power will prevent Mischief which Men voluntarily pull upon themselves; for there can be no securing Madmen from their own Violences, but by confining their Persons that it may not be in their Power to do themselves Mischiefs; and such sort of Proceeding would not be much approv'd by the most violent Advocates for this Cause.

But altho' it cannot be expected that the Legislature should concern it self in ordaining punishment for Crimes that are not to be proved, nor in preventing Mischiefs that Men voluntarily pull upon themselves; yet I humbly am of an Opinion that the Mischiefs and Abuses in Physick may be in great measure remedied; but then that this must be done by Physicians themselves

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who have been the unhappy Occasions of introducing them ; for if the uncertainty of Physick hath arose or been continued, in that the Art hath been grounded upon unprov'd and uncertain Principles ; and if the Expence of it hath proceeded or been enlarg'd by the multitude of its Professours or Pretenders ; and if both of these have in great measure been occasioned or supported, by that dangerous and fallacious usage of Physicians, writing of and treating the disorder'd State of a Humane Body, which is called a Disease, in such a Method as does induce men to think, as if it was somewhat introduc'd into the Body of Man, and was really different from it ; and so was to be consider'd and treated, as if it was form'd by somewhat real without us ; and that these Diseases being different in their Natures were to be distinguish'd into distinct Kinds or Sorts, each of which partaking of one common and specifick Nature, were to be remov'd by one common Method ; (altho' the Signs or Symptoms by which these specifick Natures, or distinct Sorts of such Diseases are to be distinguish'd and known, are not not exactly agreed ;) then I say, if these things that have been the sources of these Mischiefs and Abuses, can be remov'd ; and other Principles and Me-

Methods substituted that are certain ; then the Abuses themselves that are thus grounded or derived from these, may likewise in time be remedied ; and that this may be done I think is evident, in that Physick is incumbered with no other difficulties than what attend other Arts, (which employ Natural Agents to produce Natural Effects) and most of these are so certain , that Men do foreknow the Effects that will mostly ensue the use of such Agents.

But in order to discover Truth, and to arrive at some Certainty in this Art, we ought to divest our Minds of such Prejudices and Prepossessions, that Hypotheses or Authorities, by the means of our Educations, may have engrafted in us, since it is clear 'tis those that have deceiv'd us ; and like *Cartesius*, to doubt of every thing, until by the help of our Natural Faculties, we have found out somewhat certain to begin from ; and that we may easily do, if we will but heedfully attend to what our Senses will inform us, *viz.* That a Medicine is only a Natural Substance (and dignified with that Name, as it is to be applied or used to our Bodies) and as such must operate in a Natural way, in that its Nature is not changed by our using of it as a Medicine ; and therefore altho' the manner of its Operation in

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our Bodies, cannot be directly or immediately perceiv'd, yet the effects of its Operation may be observ'd, and by them, its Powers or Virtues known: But the better to perform this, we ought carefully to heed these two things,

First, What Effects the Medicine, which is the Agent we employ, really and truly produces,

And Secondly, after what manner a Human Body, which is the Patient to be work'd upon by this Agent, is affected by it: For in the right suiting and adjusting these two things, *viz.* the Medicine which is the Agent; and the Body which is the Patient, consists the *whole Mystery and Art of Physick*: For if the Agent is not befitted to produce such Effects as are expected from it, it is plain it is improperly applied; or if the Patient is not dispos'd to receive such Operations as the Agent can impart, it cannot perform what may be expected from it: For *quicquid recipitur ad modum Recipientis recipitur*, is not only notionally true, but is practically so, and is so allowed, and found in all natural Things.

It is certain we are capacitated by God and Nature to discover these two Things, if we will but apply our selves to such ways, as we are enabled to receive them by;
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for our Senses will plainly assist us, in discovering what the Medicine or Agent really and actually do's in a Human Body ; and our Reasons will convince us that this *Medicine or Agent being a Natural Substance*, will always have the same power to produce the same Effect ; and then if we but take a Survey of the internal *fabrick of a Human Body*, we may soon discern, thorough what Organs or Parts this Medicine or Agent, when received, into the Body must pass, and what Instruments it must use in the performing it's Operations, and how and by what ways they must be effected by it ; and the due weighing and considering of these things will plainly and securely direct us, in the choice and use of the *Agent* we are to employ : For notwithstanding the Effects produced by *this Agent or Medicine*, may sometimes be perceived at a distance, from the Part affected by it ; yet our Reasons will inform us, that this Medicine being a Natural Substance, can only operate where it is, and therefore that such remote or distant Effects, can be only propagated thither by the means, or assistance of some contiguous or intermediate Vessels ; and the Manner and the Reason of their performing this, may without much difficulty be discover'd, if we but in-

form our selves of the separate and different uses of the several Organs of a Human Body ; and it seems to have been from a Neglect in the not observing these Things, that such wonderful and supernatural Effects, have by some Authors been ascribed to some Medicines.

As to the *Patient or Body of Man*, about which, when disordered, Medicine is employ'd, we ought to consider that what is called a *Disease*, is such a State wherein the Body appears *Alter'd* from what it was *when Natural and Healthful* ; and this *Alteration or Disease* is known by its Symptoms or Appearances, for it is by them only that it can be observ'd ; and not from any general Consideration of its *Name or Nature* ; as referable to any one sort, or kind of Diseases ; since was there any such certain sorts or kinds they could be only known by these Symptoms or Appearances ; and to have recourse to such things, as in their very Natures are not to be known, can be only trifling, if not dangerous : All Alterations in natural Bodies imply Motion, because without that they must remain the same ; and Motion implies *disunion or separation of Parts*, for was there not that, it could not *Alter* ; and this when consider'd amongst the minute, but constituent parts of any Sub-

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Substance is, what is *term'd Fluidity*; for did the minute parts of a Substance adhere, and were at rest, that Body would then be consistent; *Diseases therefore or Alterations in our Bodies*, are founded in *the fluids*; and if the consistent Parts are diseased, it is from the *Fluids*; however such being fixed by Nature to determinate places of the Body, they can be only remedied by the means of the *Fluids*, from which alone they must receive whatsoever comes to them; if the consistent Parts receive then any help from Internal Medicines it is by the Fluids, in being in them, that such operate, and must be conveyed; and what other Applications are made to consistent Parts being external and immediately to them, is the proper province of *Chyrurgery*; for as the evacuating or altering the Fluids or Juices, is what appertains to a Physician, so the repairing or altering the consistent Parts, is the business of a Chyrurgeon: And as the Diseases or Alterations in the Fluids, are what properly belong to a Physician; so the attending to the several Appearances or Signs of such is what must direct him, in the mending or changing them; For by prudently weighing and comparing these he may manifestly perceive when such will be remov'd by Evacuations, and when not

and what sort of evacuation will be useful, and what hurtful: Or when the Case seems not to require such, when to alter, or whether such Alterations as are required, can be perform'd by any known Medicine. For that is what seems too often to have puzzl'd and misl'd Men, in that they will not, or do not distinguish between such Cases, that indicate the use of such Medicines whose Operations they know, from such as do not: For it seems to be from that Neglect, that they so often fall into the use of such Medicines and such Applications, that the Indications from the Nature of the Symptoms do not require, and whose real Operations they are but little acquainted with, and so are often deceiv'd by them, as might be instanced in that numerous Tribe of different Cardiacs, that are used in most acute Diseases.

But that it may not be pretended, that I have only expos'd Faults and Imperfections that are truly to be pitied, but are not to be remedied; it being unlikely, as it may be objected, that the practice of Physick that is only grounded upon Conjectures as being conversant about Diseases, which being seated within our selves are not to be discover'd, should ever arise to any certainty, I shall now proceed to shew that
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this is possible to be done, and the Reason why it hath not, hath, in all probability, been from some of these Things.

First, In that Men in their Considerations of the Vertues or Powers of Medicines have not so much regarded, what the Medicine as a Natural Agent, really and actually performs in a Human Body; as what Successes or Mischiefs have ensued upon its use; which being often so very different, hath been the occasion why such different and even contrary Vertues have been ascribed to the same Medicine; by which means Men (as to these things) must necessarily continue in uncertainty; for by their not distinguishing between the real Operation, and the Effects that do ensue upon, or after that Operation, they are too apt to ascribe Powers to it that it hath not; and to conclude that more depends upon the Medicine than really does.

Secondly, They seem not to have attended to the manner or ways by which the Medicine can operate, nor the Instruments it must employ in its Operations; by which means they have assigned improbable, if not supernatural Effects to such; as may be instanced by their supposing particular Medicines to have particular powers to purge particular Parts, or to select and discharge particular Humours.

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Thirdly, In that they have consider'd Diseases, under Species or Kinds, for by that they seem'd to have writ, as if such were somewhat brought or introduced into the Body of Man ; and all of *one Sort* or *Kind*, that is, that were comprehended under one Name (for their Natures were not determin'd) were to be remedied by the same Medicines ; by which means strange and incomprehensible Powers were ascrib'd to the Medicine or Agent (little or no regard being had to the dispositions of the Body or Patient) in that they imagin'd the Nature of the Disease the same, altho' the Symptoms were somewhat different, whereby their Thoughts seem to have been wholly fill'd with Expectations from the Agent only ; as if that had some secret and Divine Vertue to expel this *Stranger* or *Disease*, without operating upon, or affecting the Body of Man, in a natural way ; and consequently imputing all Successes to that absolutely, without considering it in relation to the diseas'd Body : And thereby have deviated from that known Maxim of *quicquid recipitur, &c.*

Fourthly and Lastly, In that they have not observ'd the same Methods of Improvement as are persued in all other Arts where Natural Agents are employ'd to produce
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Natural Effects ; for notwithstanding in such other Arts Men may have rais'd Theories, yet such have been grounded upon, or derived from *Practice, Experience, and strict Observation* ; whereas in *Physick* it is directly otherwise, for since the great *Hypocrates's* time, the Practice in that, hath been mostly grounded upon, and suited to its Theories, which having been mostly Speculative, have proved uncertain, and so have been the unhappy Occasions of deceiving them, instead of improving their Knowledge.

It is true we have had some steps made towards a Reformation in some of these Matters, several Eminent Men having attempted to reclaim Mankind from some of these prejudices ; and amongst such, as justly deserving to be first named, the judicious D. *Sydenham* ; but notwithstanding that excellent Person, exploded *Hypotheses* and *Speculations*, as unfit and unsafe to be intermixed with Practice, yet so far was he prejudiced with the receiv'd Notions of distinct kinds of Diseases, and their common Natures, that he only pursues the Writing of the *general Histories of Diseases* ; and then He, admitting of Alterations from the first Qualities that did not relate to the Essence of the Diseases, hath from these Reasons somewhat sullied the Advantages that

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otherwise might have been gather'd from his practical Method : And indeed as a consequent to these his receiv'd Opinions, he seems to have built too much upon his own Notions of the Vertues of Medicines, which he seems to have form'd (not by observing what they really perform in a Human Body, and so concluding of their uses by that) but by only attending to their uncertain Successes : As I think may be clearly inferr'd, not only from his Encomiums, but also from his Administrations of *Laudanum*. I write not this to lessen the Character or to cloud the Writings of one who hath deserved so well ; but only to shew that this great Man (who went the farthest in a Reformation of Physick) hath left it upon an uncertain Foundation. For had *He or Others* but carefully distinguish'd where Nature really divides, *viz.* but between what the Medicine or Agent actually and really does, and the Effects that have but sometimes ensued upon, or after its use, Physicians need not have been so often deceived in their Expectations from them ; whereas the neglecting of this hath been a Principal Cause of continuing the practice of Physick in its present uncertain and deplorable State ; for from this Reason the Sick have sometimes been, I doubt, troubled with Medicines to little

little purpose, and their Expence and Trouble encreas'd ; and not only so, but the Profession it self vilified and reproach'd : For from this neglect Physicians have, it is probable, become divided into Sects or Parties, which are warmly embitter'd against each other, by which the Reputation of the Art suffers : Thus for Instance have they been divided about *Acids* and *Alcalies* ; some affirming the First to be the occasion of Diseases, and others justifying it, and charging the Latter : And accordingly some have recommended a sort of Medicines, for destroying Acids (which perhaps exist nowhere but in the Stomach) And others do the same for Alcalies, and yet the real Operations of neither are heeded. The same may be observ'd concerning Opium or its preparations, some extolling it to the Clouds, as if they thought it endu'd with a sovereign and divine Virtue, attributing all the Successes of their Practice to the Virtues of that excellent Drug ; whilst others blemish it with the blackest Character, as partaking of pernicious Qualities, and so brand it with all the Mischiefs and Miscarriages that have ensu'd, where it hath been us'd ; whereas had they attended to what it really performs in a Human Body, they might soon have discover'd, that the Ad-

vantages or Misfortunes, have only proceeded from the reasonableness or unreasonableness of its use: The same may be said of divers others.

Having thus hinted at the Reasons that in all probability have hitherto obstructed the Certainty, and Improvement of Physick; I shall now proceed to shew the ways and methods by which as I apprehend it is to be done, and the possibility of doing it; Physick being incumbred with no other Difficulties, but what are common to all other Arts where Natural Agents are employ'd to produce Natural Effects, and therefore may be rendred as certain if the same Methods are but persued to effect it; which appears by these Reasons;

First, In that what the Medicine as an Agent do's, may easily be distinguish'd from the Benefits or Mischiefs that, sometimes only, ensue upon its use; and therefore its real operations may be known.

Secondly, In that the manner and way of its operation, as likewise the Vessels or Instruments it uses in its operation, may likewise be known.

Thirdly, In that the disorder'd State of a Human Body which we call Disease, will some ways so discover it self, as thereby we may be directed in the use of such Medicines
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whose operations we know, if we will but seriously attend to it ; and how dangerous and trifling it is to administer such whose operations we do not know, I leave to the consideration of every rational Creature.

The first of these appears evident from these Reasons, First, In that Nature is always found exactly regular in the Formation of the internal Fabrick of a Human Body, and therefore all are alike disposed to receive the same operations from the same Agent : Thus Substances that are real Poyson, are naturally so to all Men : And thus those that are Purgers or Vomitters, are likewise so to all Mankind ; I do not say the same quantities of such Substances will equally effect all Men ; for that depends upon the difference that may be observ'd amongst Individuals : But I say such Substances have in their Natures such Powers as will produce such Effects, if administered in proportionable quantities.

Secondly, No Alterations are produced in a Human Body by the power of Medicines, but they do some way or other become discoverable by our Senses, if they are but heedfully observ'd ; which that I may demonstrate I must beg leave to observe that all Medicines may be consider'd, *as either*
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they evacuate or alter ; by the help of the first of these, somewhat is discharg'd the Body ; by the help of the second, somewhat is alter'd or chang'd in the Body : It is plain at first sight, the Effects of the first sort, are immediately visible ; and accordingly their Natures (so far as they have a power to produce evacuations) may be known, in that they may be observ'd : Thus for instance, Men have a full assurance, that some preparations of *Antimony*, *Asarabacca leaves*, *Squills*, &c. will occasion what we call Vomitings, by reason that discharge will regularly ensue upon their use : The same may be observ'd concerning what we call Purging, for *Scamony*, *Rhubarb*, *Fallup*, *Senna*, &c. will always occasion that evacuation : The same may be observ'd concerning what raises Salivation, and what produces Sweat, or enlarges Urine (if in truth, there be any Substances that really and of themselves perform such :) whereby it appears evident there is no difficulty in discerning the regular Effects that do attend such Medicines, or natural Substances that have a power to excite such Operations in our Bodies, that are attended with discharging somewhat out of our Bodies ; in that such discharges become of themselves visible.

As to those of the Second sort, such as only alter or change the Nature or Quality of somewhat in the Body without any signs of any visible discharge ; their regular Effects may, as I suppose, be as readily discover'd as the former ; in that the Mind of Man cannot suppose there can be such a State of a Human Body, that requires to be alter'd, chang'd or remov'd, but that it must be discoverable either immediately by some outward Appearances, or internally by the relation or complaint of the *Diseas'd* (for if this is not admitted, there can be nothing that can require altering, the Man being well) : And then if such a Sign, Symptom, Appearance or Complaint, do's regularly and certainly alter or vanish upon the use of such a Medicine, we may reasonably conclude this was and is effected by the power of that Medicine ; and that the performing that, is it's regular Operation : For instance, if Physicians can observe that Persons that fall into disorders, only by intervals, or at certain and periodical times, and those disorders appear of such a Nature as plainly shew they are seated in, or deriv'd from the Blood, (the manner or way of distinguishing such from others, do's not belong to this place) and that such periodical disorders, are regularly remedied
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by the use of the celebrated Bark ; Men may by such Observations be easily let into the Mystery of it's true Operation, *viz.* that it really hinders the Blood from falling into such præternatural and periodical disorders ; that is, that it keeps or retains the Blood in the same State : And this may be confirm'd, if we do but observe how that noble Drug seems to have but little, if any effect upon our Bodies, when under no such disorders, unless sometimes to run off with a Looseness. The same may be said of Opium, that its real Operation is only that it stills, quiets or some ways composes the Spirits ; it is certain that it is by the Spirits or what passes in the Nerves, that animal Motion and Sensation is perform'd, by reason, intercept but this their Motion, and both these are lost : When therefore that Motion of Spirits, by which these are perform'd, is lessened hindred or some ways ceases, that is, these Spirits, or Instruments of Sensation and organical Motion, are at some sort of Rest, the Man is then in a State different from what he was, before this happen'd ; *and this State, whether Natural, or forced, is what we call and name Sleep ;* thereby to distinguish it from the other, wherein these Offices are perform'd, which we term *being awake* : It is true, there
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are a great many intermediate degrees between these *two absolute and entire States*, viz. of *Rest, and Motion of Spirits*, term'd *sleep, and being awake* : For as in inanimat-ed and natural Substances there may be observ'd several degrees of Motion, the slower the which are, the nearer they approach to Rest; and the swifter, the farther remov'd from it : So in animated Bodies, the slower or lesser this Motion of Spirits, the nearer they approach to *rest or sleep* ; and the greater or nimbler, the more *remov'd from it* : It is true we want Words to express these several Degrees ; yet we do in gross observe somewhat of them, in that we distinguish between an *entire and profound sleep, and imperfect ones, or such as are not so* : It is certain *Opium* if administred in quantity, will someways alter hinder or lessen *this Sensation*, and *Organical or Animal Motion* ; and these being perform'd by the Motion of the Spirits, it is plain *Opium* some ways quiets or composes this motion of *Spirits*, by which these are perform'd : And from this singular Operation are to be deriv'd all the Vertues and Mischiefs that are ascrib'd to that Drug ; there being nothing else in a Human Body from which they can proceed : When therefore Physicians may experience, that the Effects that attend the

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lessening or hindring this Motion of Spirits, do regularly succeed the use of this Drug, they may reasonably conclude that this is its regular Operation. The same may be said of Steel; for where such Symptoms appear, as plainly denote the Crasis of the Blood to be loose, and it's Circulation languid, and such Symptoms are regularly remov'd by the use of Steel; it is a bright proof, that Steel hath a power to invigorate the Blood, and to intend its Circulation: The same might be observ'd of several other Drugs, but these I think are sufficient to prove the possibility of Discovering the real Operations of Medicine.

The Second thing to be observ'd is their manner and way of operating, and the Vessels or Instruments they must use in the performing their Operations, and these are to be discover'd by the surveying and considering the fabrick of a Human Body; but more especially those Parts or Vessels that by reason of their Situation, Nature or Communication, may be affected by such Medicinal Operations. It is without Controversy, *that Medicine* if taken inwardly, must and does pass into the *Stomach, Intestines*, and so some part of it may like our Aliment pass into the Blood, and with that
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be whirled about into the several Parts of our Bodies ; and so may either remain as a part of our Blood, or be either discharg'd the Body by the help of the Secretory Vessels, or be applyed to some other uses, such as is making Spirits, or relieving or nourishing the organical Parts ; For the Blood is the Fountain from whence all other Parts whether fluid or organical, whether necessary or superfluous and useles are supplied : So then to form a right Notion of the operations of Medicines, we must consider how they can affect one of these *three Parts*, viz. *Stomach, Bowels or Blood*, since what other Parts are affected by them, must be by the help or means of one of these. But first of the Stomach ; but before I descend to explain how that is immediately affected by Medicine , it will be proper for the easier comprehending the operations of Medicine there, to premise what are its Natural Uses and Performances : The Stomach then is prepared by Nature to receive what we eat and drink, which is from thence to be convey'd into the Guts, &c. but it being so fashion'd, that the Orifice by which it is to discharge into the Intestins what it hath receiv'd by the Mouth , is situated in the upper Part of it, for which reason it is naturally endued with a gentle and

easie Motion, by which it contracts or fo-
 raises its bottom, that it gradually pours
 out what is contained in it, by this its
 lower Orifice into the Guts ; this is what
 it ordinarily and naturally performs. When
 then any Substance is receiv'd into the Sto-
 mach by which the Parts of it are irritated,
 or some ways troubled, its natural Motion
 becomes disturb'd, and perhaps inverted,
 for the Stomach then contracts with some
 violence, and forces by the upper Orifice in-
 to the Mouth what is contained in it ; and
 this is called Vomiting. The natural of-
 fice of the Intestines, is that by an easie Mo-
 tion, they convey downwards what they
 have receiv'd from the Stomach, that so
 the best and Alimentary Parts of *That*, may
 be receiv'd by proper Vessels, fashion'd
 for that purpose, and so be conveyed into
 the blood for natural and vital uses. The
 operation of Medicines, so far as they regard
 the Intestines, is in that they irritate or some
 way hasten or quicken this natural motion,
 by which means what is contain'd in them, is
 with greater haste discharg'd the Body ; and
 this is called purging, which is nothing
 but quickening the motion of the Intestines
 downwards, as Vomiting is nothing but
 the turning the motion of the Stomach up-
 wards ; whatsoever then forces the *Stomach*
 or

or *Intestines* into these Motions, must produce *these Evacuations* ; for all the Medicine does, is only the beginning or occasioning these Motions ; for it is the Motion it self that makes or produces what we call *Vomiting* or *Purging*. This Consideration will plainly teach us, that it can be of no moment, as to the Effect of such Evacuations, by what Substances these Motions are begun or caus'd ; since it is most manifest the Effects of such Evacuations must proceed from the motion it self, and its degrees, and not from any Power or Virtue in the Agent or Medicine, more than as that began or occasion'd such Motions ; which if granted, and I cannot see how it is to be denied, to what purpose are all those pompous Prescriptions in our Receipt Books, by which these kind of Medicines are so multiply'd, and the Shops are oblig'd to abound in, to the Expence of the Sick, and their own loss : What more required than the choice of a few Drugs, as they are experienc'd to be gentle or violent in the exciting these Motions, according as the Nature or Circumstances of the Sick may require. But to return, a due consideration of the fabrick of a Human Body, will clearly direct us, what Vessels can be affected, and what Juices can be discharg'd
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and from what Parts those are brought by these Evacuations, that are thus occasion'd by these Motions of the *Stomach and Bowels*; and when, and in what Cases, these motions ought to be *violent*, or when *but gentle*; for it is evident whatsoever is discharg'd by these Motions must be already in the Cavities of the *Stomach or Bowels*, or must be brought into them during these operations; and what is brought into them, must either be by the *Ductus* that are annexed to *Secretory Vessels*, that usually and naturally discharge their Juices this way, such as the *Liver, Pancreas, &c.* or it must be squeezed and some way express'd or forced out of the Blood it self, whose Vessels meandring in and about the Intestines and Stomach, are by the violence of these Motions forced to part with such Juices as are befitted to pass the Membranes into the Stomach or Intestines. And a due Consideration of these things will safely lead us not only in the choice, but use of Purgers; for it is evident at first sight, where large quantities are to be discharged, violent Purgers are to be administred; where but little, and that not separated, gentle and slow ones; it being much more reasonable to give Nature leisure and time to separate and to attend that by gentle and repeated Evacuation,

than

then to attempt it by violence, when she is not disposed for it.

There are another sort of Medicines that plainly exert their Powers in these Parts, and that not so much by troubling, or irritating the Stomach or Bowels into any violent or præternatural Motions, as by some way striking or affecting the Spirits, and thereby repelling or hindring them when they tumultuate and seem, contrary to their Natures, to invert and occasion a sort of motion upwards, as may be observed in what are term'd Hysterical or perhaps Hypochondriacal Cases; where there seems to be a rising or an ascent upwards, attended with Ructus or a kind of Streightness, or Choaking, &c. for here we may observe volatile Salts, fætid or strong Medicines, or even a draught of cold Water, will relieve or suppress these, and especially if the disorder seems to begin low; for in these Cases, altho' the Medicine exerts its power in the Stomach or Intestines, yet the Effect of this power is propagated farther by the means of the Communication that is between the Nerves inserted in the Trunk of the Body; for as for such sort of Medicines that are experienced to have a power to quiet these, or any other kind of organical Motion (which seem likewise sometimes

times to operate immediately upon these Parts) I have already hinted at them in that brief Enquiry concerning Sleep, and the operations of Opium.

The third and last part or place, where Medicines can exert their Powers is in the Blood; and this they may do either by disposing, or forcing of it into unusual discharges; or by some ways altering or changing its Nature or Qualities, without any discharge; the first of these are ordinarily suppos'd to be of three sorts, *viz.* by *Salivation*, *Sweat* or *Urine*, in each of which the discharges become immediately visible; and what the Medicine do's is only the disposing or befitting the Blood, to throw off some of its Parts, by these several ways; for the Medicine being so entirely mixed with the Blood, as it is obvious it must by the Circulation, being carried about the Body as the Blood is by that Motion, it is plain the Medicine cannot be in a Condition to select or separate what Parts the Physician pleases; or at least of it self cannot convey the diseased Matter out of the Blood and Body by these passages; for being but a natural Substance, it can have no such power of it's own, whereby to perform this; and then being thus mixed with, and made a part of the Blood, it must be subject

Subject to it's motions and therefore can in no ways so unite the morbidick Matter as to carry that only out of the Body by these passages ; by reason such diseased Matter, being brought (to the Vessels or Parts, which separate what is discharg'd by either Salivation, Sweat or Urine) with the rest of the Blood, that can only be expell'd the Blood accordingly as it is befitted, or not, to pass by these ways : So then the Benefit or Advantage of these Evacuations (when they are of any, for it is certain at sometimes they are not) must be according to the quantities or continuance of them, and not to the Nature of the Medicine by which they are occasioned ; since that can only dispose, or force the Blood to these discharges ; which being natural to our Bodies do always continue, altho' perhaps may be encreas'd by the help of Medicine ; but then the Medicine altho' it enlarges these, yet it cannot (as having no such power) select or carry off what parts are only hurtful by these, by reason that depends upon the disposition of the Blood, and not upon the power of the Medicine : The truth of this is not only agreeable to Reason, but is also confirm'd by Experience, in that these discharges when of use, are always observ'd to be so according to their

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quantities

quantity and continuance: All then that the Medicine do's, or can do, being only to dispose the Blood to these discharges, it matters not by what Medicines these discharges are created; since the Mischief or Advantages that arise by such, cannot depend upon the Medicine but only from the present disposition or not, of the Blood, to better, or not better it self by these discharges: Which consideration will not only lessen that almost infinite Number of Medicines that are so variously administred, for the producing these Evacuations; but will also plainly direct in the certain and genuine use of such. For instance, if Mercury is the only *known Drug* that will raise a Salivation, and the Mischiefs or Advantages that may proceed from a Salivation, depend upon the disposition of the Blood to part with or separate the Morbifick Matter by that discharge, or not; what matters it by what Compositions or Preparations of Mercury it is rais'd? for if by such pompous processes we destroy the Powers or Qualities of Mercury, it will not then move the Blood to this discharge, and if we do not, it is but Mercury still, altho' under a disguise, and so remains possessed of the same qualities: However thus far must be allow'd, that these being Evacuations, and so be-
coming

coming visible to us, may readily be observ'd; and if such regularly succeed the use of any particular Medicine, we may rationally conclude that such were effected by the means of that Medicine; and so are but what it will certainly produce, whereby the real operations of such may readily be known.

As to the second sort of Medicines, such I mean, as exert their operations in the Blood, by altering or changing some qualities or powers, without effecting any observable discharge from it; we must consider that no real changes can be effected, but there must be some perceptions of it; for if there is not, it must as to us, remain the same. So then if we discover any Alterations that constantly ensue upon the Administration of a particular Remedy; we may safely infer that was produced by that Remedy; but in doing of this, we are only to heed the succeeding Alteration, without any regard to what ensues by it, *viz.* Whether it be of any Advantage or not; for the doing of that relates to another Consideration. But that we may conceive rightly of these things, we must consider that all Alterations that are effected in Natural Bodies, so far as they are or can be known to us, must be in the Change of some of their

sensible Qualities ; and these Qualities being
 only Powers in such Substances to affect us
 in such a Manner ; which Powers plainly
 arise from the internal *Texture* or *Constituti-*
on of their minute Parts, such as are the
Bulk, Figure, Position, Motion or *Rest* ; if
 then these are alter'd, the Qualities that are
 created by these must also alter. However it
 being by Virtue of these Qualities, that
 Men distinguish between natural Substances ;
 they are prone to imagine that all Alterati-
 ons that are made in natural Bodies, are oc-
 casion'd by these Qualities, in that it is by
 them only such alterations are perceiv'd ;
 whereas really and in the Nature of things,
 the Alterations in these Qualities are only
 deriv'd from the internal Change of the
 minute Parts ; so then for Men to have re-
 course to these Qualities for the explaining
 the *Nature or Change in Bodies*, is really
 going backward, that is, making what is
 only the Effect to be the Cause. However
 the Alterations in these secondary or sensi-
 ble Qualities, are never to be discover'd, but
 as they may be examin'd by our Senses ; (be-
 ing indeed relations to them, and made by
 them) And that not being practicable,
 whilst our Blood runs in our *Veins*, in that
 we are debarr'd from such an Enquiry, by
 the interposition of the Vessels wherein it
 is

is included ; (and as for an Examination of any part of it when taken out of our Bodies, it is too manifest that the sensible Qualities will alter, according to the different ways of drawing it ; so that nothing can be safely inferr'd from that) whereby it is evident that to pretend to explain the operations of Medicines, by the Changes in these Qualities, is only to puzzle and perplex our selves about what we can never discover ; and if we could, would be of no manner of use for the purposes we intend it. However notwithstanding the Consideration of sensible Qualities cannot give us much light into the true use or operation of these kind of Medicines in our Blood ; yet it is plain we want not help whereby to do it ; in that the Motions and Separations of the Blood fall under our Cognisance, and by observing the Alteration in these, we may be readily assisted in it.

Thirdly and Lastly, that disorder'd State of a Human Body which is called a *Disease*, discovers it self, or is known, by some *Signs*, *Symptoms* or *Appearances* ; and from that difference that is observ'd in these, *viz.* *Signs* or *Symptoms*, is denominated, and rank'd under this or that *sort* or *kind* : this is to bright a Truth to be question'd in that Physicians apply themselves to these
Signs

Signs or Symptoms, to distinguish between the *differing kinds of Diseases* : And these Symptoms being occasion'd or made by reason of some Alterations in our Bodies, (for it is certain when the Body is diseas'd, it is not then as it is in Health) and all Alterations, whether in our own or other Bodies, being made by *the Fluids* : It is to *them* we must apply our Enquiries to learn the Nature of such Alterations or Diseases, and likewise the Methods by which they are to be remedied. For notwithstanding the Organical Parts may be sometimes Diseas'd, yet such being settled and fixed by Nature, in certain and determinate places, and ordain'd for particular uses, (and so incapable to receive any internal help from Medicine, but by means of *the Fluids*) are never to be better'd or mended internally but by them : And as for externals, or applications immediately made to such Parts, that concerns Chyrurgery, but not Physick : Neither in truth could the Mischiefs that arise from diseased organical Parts, be of any dreadful Consequence, but that the Fluids are some ways injur'd or poyson'd by them ; by reason it is in the circular or progressive Motion of the *Fluids*, in which life, so far as it can be known by us, is repeated.

This being premised, our own Experience will inform us of this Truth, that there are but two *sorts of Fluids*, that can of themselves, be primarily and immediately alter'd, or so affected, as to be the Subjects of what we call a *Disease*; for notwithstanding there are many *other Fluids* in a Human Body, yet all such being made or separated out of the Blood, by this or that particular Organ, or Vessel, do therefore partake of the Nature of the Blood. When therefore the Blood which is the Fountain of *these* is disturb'd, these Streams cannot be clear; neither when these Streams are clear, can the Fountain be muddy; whereas altho' the *Spirits* or *what passes in the Nerves* are also made and separated out of the Blood, and so will partake of the Nature of the Blood, that is, will be natural and good, or the contrary, as the Blood is; yet they being prepar'd by Nature, for the Instruments for continuing that Motion wherein *Life consists*, as also all other organical Motion, and all Sensation, have for that Reason some prerogatives independent of the Blood, and accordingly may be observ'd to be alter'd or disorder'd, when the Blood does not appear to be affected; as may be instanc'd in sud-

der

den Frights, Surprises, or violent Passions, which will frequently occasion *Fits*.

These two then, *viz. Blood and Spirits*, being the ordinary subjects of Diseases, for I do not intend in this brief Enquiry, to enter into a detail of observing how the several appropriate *Fluids* may be diseased and remedied, by the means of the *Blood* : I shall now briefly consider how many ways *these two, viz. Blood and Spirits*, can be observ'd, or conceiv'd by us to be diseased or præternaturally affected ; but this will not be easily comprehended, unless the Natural *Offices and uses of these two, viz. Blood and Spirits*, are first consider'd : It is certain the *Spirits* are the only Instruments of all *Sensation and Organical Motion*, and it is clear from the consideration of the *Nature of these*, that the first must be perform'd by a Motion began in the *Organ*, and continued to the *Brain* ; and that the latter must be began in the *Brain*, and continued to the *Organ* ; when therefore either or both of these Functions are perverted or alter'd, it is manifest the *Spirits* by which they are made, must be some ways disorder'd, or ill affected : And these *Spirits* being the Instruments to receive impressions from outward existences, as we may perceive in Sensation, are therefore in their very Natures befitted to

to be operated upon, or affected by Medicines; by reason the Medicine being a Natural Substance may as well immediately affect the Nerve, as other Substances, or outward Objects do; when such Medicines can be immediately apply'd to them. When therefore the Natural Offices or Functions of *these Spirits*, are disorder'd in any Parts of our Bodies, that are by Nature so-situated, as the Medicine can immediately operate upon them; or can so operate that the Effects of its operation may be communicated to such Parts that are disorder'd: In this Case it is plain, such Disorders (it is possible) may be alter'd, diverted, or some ways affected, immediately by the Medicine; as we may observe is frequently done, in such disorders that are begun in the Trunk of a Human Body; for the Medicine passing *that*, some ways affects the Spirits residing there, and these Spirits in all that Region communicating interchangeably by the help of the Nerves, are therefore frequently affected from Medicines there; as particularly appears, by the immediate Effects of volatile and foetid Medicines, in such Cases as are term'd Hysterical or Hypochondriacal: The Consideration then of the Parts primarily affected in such *Spirituons Disorders*, will clearly direct us when such Medicines, as Experience teaches us have a Power of

some ways working upon the *Spirits*, may be advantageously administred, and when not; for if such spirituous Disorders begin in such Parts of our Bodies, as are not to be affected by such kind of Medicines, it is plain they must be used to little purpose; or if they arise from any natural fault or depravity in the *Spirits* themselves, it is clear then, they are only to be better'd or alter'd by the Blood, from whence they are separated; and to attempt to alter the tumultuary and præternatural Motions of deprav'd and unnatural *Spirits*, is not only trifling, but may be dangerous; since the very *Natures of such*, must be bettered before their Operations can be remedied: And this is only to be done by the Blood, from whence they are separated; and we want not Means to discover this difference in *spirituous Disorders*, if we will but heedfully attend to the Circumstances of the Diseased, and to the State of the Blood, as it appears in its *Motions*, and *Separations* at that time; and of consequence need not be deceiv'd in the use of such Medicines.

The Blood is the other Fluid in which Diseases are seated, our next Consideration shall be, what we can know of *them* there: But that we may the better comprehend the *Diseased or præternatural State of the Blood*, it will be necessary to premise somewhat

what of it's natural and healthful State. It is certain the Blood is continually moving, daily receiving Juices into it, and hourly casting Parts from it, and that it is contain'd in its proper Vessels, and those enclosed and wrapt up in the common Coverings of the whole Body, so that of it self it cannot fall directly under the Cognisance of any of our Senses; for which Reason so long as it continues in this State, we are excluded from the knowledge of its sensible or secondary Qualities, because it cannot operate upon us, whereby to discover such Qualities: It is true, when any part of it is detracted out of our Veins, it may then fall under our Examination; but then the differences that are to be observ'd in these Qualities, do so often arise from the Circumstances of its Emission, that there is little to be concluded by them, of its Nature; as will plainly appear to any one who will but take the pains to observe the great difference that will be in Blood, as to Colour and Consistency, that is detracted out of the same Arm at the same time, accordingly as the Orifice is narrowed or enlarg'd, or as it is permitted to drill gently, or to flow with a full Stream; nay farther, the judging of the Nature of this Scarlet Gore, by these Qualities, must be very fallacious, in that the Blood of a Man in a perfect State of

Health, must be acknowledg'd to be *Good*, in that the Goodness of his Blood is but a relation to such a State; and yet if the Blood of such persons are but examin'd, they will be often found to differ in Colour, Consistency and other sensible Qualities; a full proof methinks of the vanity and uncertainty of discovering the Nature of the Blood, by such Enquiries; that is, of establishing any certain Criterion by the means of these Qualities, whereby we may safely judge of the Goodness or Badness of Blood. If it should be objected, altho' this method is treacherous, yet we want not helps by the means of Chymistry, whereby more certainly to do it; since by passing it thorough the fiery tryals of the Chymists, we can force it to confess its Nature, in that we can resolve it into its *first Principles*; to which may be answer'd, that those pretended *Chymical Principles*, are really none, in that they are not unalterable; and in truth seem to be more the produce of the Fire, than the Principles of Nature, since no Art when they are once Separated, can so reunite them, as to induce them to put on the same Qualities or Appearances; neither is there any exact identity in the Natures of those Principles that are esteem'd the same, as appears by the great diversity of what are call'd the Spirits,

rits, Salts or Oils, extracted from different Substances; besides was there any Certainty to be made concerning the Nature of Bodies by these fiery tryals, yet they could be of little use, since our Blood is not to be examin'd that way, when it is running in our Veins; and Diseases are only seated in it when it runs there.

But notwithstanding we are debarr'd from any immediate knowledge of the Nature, or sensible Qualities of the Blood, so long as it continues in our Bodies, yet we want not means to be inform'd of its Alterations, Disorders or Diseases, in that its Motions fall under our Cognisance by the help of its Vessels, and its separations immediately of themselves; and by a due weighing and comparing of these, we may be directed concerning the Alterations in our Blood, and in the use of such Medicines and Applications, as our Experience hath taught us are proper for the remedying such.

The Motions of the Blood are of two sorts, *viz.* Natural and Animal; the Natural is only the intestine Agitation of its minute and constituent Parts. This Motion I call Natural, in that it is common to *all Fluids*; by this Motion such Parts of the Blood, as are uniform or homogeneous, would soon congregate; as we may observe they naturally do when at liberty, that is, when drawn

drawn out of our Veins, and so out of the Power of the circular Motion ; but the Blood is hindred from doing this so long as it continues in our Bodies, in that it is continually whirled about in Circulation: In the just temperament of these *two Motions*, consists so far as we can discover, the healthful State of the Blood ; for by these the Mixture or Crasis are so far preserv'd that the Separations are natural and proportional : I do not deny but the internal Constitution, or nature of the Blood may be alter'd by the Admission of differing Juices ; but then I say, this cannot be effected, but by altering the Motions or Positions of the minute but constituent Parts ; and then the qualities or powers that arise from *these* must be alter'd : What I have call'd the natural Motion, appears and may be judg'd of by the differing degrees of Heat ; Heat in Nature being only a violent Motion of the minute parts of Body ; (for as to the different determinations of these natural Motions of the small Parts of Matter, they are never to be discover'd) so then as the degrees of Heat appear, this Natural Motion must be : The circular Motion is discover'd by the *Pulse*, and as that is either *violent* or *languid*, the natural Motion by which the *Separations are made*, will be more or less hindred or disorder'd in these

Separations, that is, the constituent Parts of the Blood, will be by the means of this circular Motion hindered from dividing from each other; for the more impetuous the Circulation, the more confused the Separations; for the Parts of the Blood being by that Motion kept from dividing, the Secretions that arise by the means of the natural Motion, must necessarily be lessen'd and perplex'd; for notwithstanding these Separations are made by particular Vessels appointed by Nature for that use, yet these Vessels being only passive in that performance, that is, being so situated and fashion'd, as to let such Parts only of the Blood to pass thorough them, as their Configurations will admit; it is plain, if the small parts of the Blood are entirely blended together and kept closely mixed, by the impetuosity of the Circular Motion, there cannot be that disposition to these Secretions, as when it is more languid and slow: These natural Separations are of three sorts, First, perfectly useful, such as is that of the Spirits by the Brain.

Secondly, partly Useful, and partly Excrementitious; of this sort are the *Saliva*, *Bile*, &c.

Thirdly, purely Excrementitious; such as are the *Urine*, *Sweat*, &c.

And every one of these may be either lessen'd or encreas'd, either vitiated or alter'd, or hindred or suppress'd; and these differing Faults or Affections of the Separations may be discerned by us; (altho' the immediate Causes of these are not to be discover'd). But the better to comprehend what is here intended, it may not be improper to take a short view of the natural state and use of the Blood, for by that we shall be enabled to judge of its præternatural one, and the Ways and Methods by which that is to be remov'd or remedied.

It is certain the Blood is compounded and made up of very differing and unlike Parts, is always running in its proper Channels, and is continually parting with or separating Juices from it, and as daily receiving others into it; and being daily renew'd and made out of what we eat and drink, *is the Common Source* from whence all Parts of the Body receive Nourishment; and likewise such Juices as they are befitted to separate; and that these may be the better perform'd, this Blood is commensurated and proportion'd to the Body; for should its quantity be too little, every Part could not receive a due Proportion; and should it be too much, some Parts might suffer by the excess. As a Remedy for the first, Nature hath

hath wisely given us a Sense of *Hunger* and *Thirst*, which gives such an uneasiness that we are oblig'd to seek for Food and Drink, out of which our Blood is encreased, and so each Part is reliev'd: As a Remedy for the latter, she hath form'd *Secretory Vessels*, which are as *common Drains*, or *Wastes*, as well to receive and carry off superfluous Parts, as to separate dangerous and useless Juices: For the whole quantity of what we eat and drink, (I speak of that Part that is receiv'd into the Blood) not being all to be employ'd for the repair and nourishment of our Bodies; had not Nature form'd *these Drains* to carry off superfluous Parts; our Bodies must soon have been over-charg'd, and our Lives extinguish'd by those very Means, (I understand of eating and drinking) that are ordain'd for preserving them. Furthermore, our Blood being made out of what we eat and drink, and some Particles from the Air being admitted with our Breath into it, must clearly consist of very differing and unlike Parts; which therefore by reason of that intestine Motion that is *congenite to all Liquids*, would by degrees be so disposed, that the more uniform and homogeneous parts would congregate, were they not hindred in that by the Circulation; however altho' the Circulation and the smallness of its Vessels hinders the natural

secession in the Blood of the uniform Parts ; yet some parts from it, are permitted to pass by the *Secretory Vessels*, which if they did not would occasion *Disorders in it* ; for notwithstanding our Blood can never consist of parts purely homogeneous or uniform, yet the parts of it seem to be much more so, in a state of entire Health, than in Sickness. And therefore the better to remove and carry off such parts of it, that are too heterogeneous, and so offensive and dangerous, Nature hath wisely form'd secretory Vessels and passages, by which those, as well as useless and superfluous Parts, may pass and be discharg'd. And whensoever our Blood is perverted or hindred in these its natural performances, the All-wise Creatour hath furnish'd us with Medicinal helps whereby we are enabled to assist it ; that so our Healths may sometimes be preserv'd, and our Lives prolong'd : But since *to die is an Entail upon our Nature*, he hath not permitted such a Knowledg to us, as always to be able to perform this in such a Manner as that it shoul'd be a means to preserve our Lives ; this therefore is one of the principal busineses of a Physician, to distinguish when the making these Discharges will be useful, and when not ; and in this he need not err, if he will but heedfully attend to what the Motions and Separations will indi-

indicate. For notwithstanding a Human Body may be so mov'd by Medicines, as to be forced to make Evacuations ; yet the separating what is hurtful and offensive from the Blood, being to be made by the Blood it self ; and that being to be done by the natural and intestine Motion of its minute Parts ; (which are not to be regulated by us) it is plain such cannot always be of use, neither in fact are they ; for the most that Medicines can be conceiv'd to do, as to the Natural Motion of the Blood, is only to intend, or encrease, or to abate, or lessen it: For as for what is separated from it, by the help of that Motion, that will be as the Nature of the Blood at that time is ; that is, the preternatural and hurtful Parts will either pass from the Blood, by these Vessels or Passages ; or they will remain in the Vessels with it. If the First, and they pass by such Vessels or Passages as are destined for the discharging Excrementitious Juices, our Bodies are then safely by Evacuations deliver'd from them ; but if they pass by such Organs as are prepared by Nature to separate such Juices as are of real use for the continuing our *Lives* (as for Instance by the Brain with our Spirits) they then sometimes exert a Tragedy as fatal to our Lives, as if they had never been parted from our Blood ; and the en-

creasing Evacuations in that Case will not often change the Course, by reason if the malignant Particles would have been separated by the former passages, they would not have passed by the Brain: If the Second, that is, they remain in the Blood, it is plain such then is their Natures that they cannot be separated from it, and therefore continuing in it, they often so break and divide its Crasis, that it cannot circulate; and thereby extinguishes our Life that way.

But notwithstanding it is not within the compass of Human skill, so to regulate the intestine Motions and determinations of the minute Parts of the Blood, as thereby to enable them always to separate from, or expel such Parts or Particles as are hurtful, and may be destructive to our Lives; yet Physicians have a Power by the help of Medicines to intend or encrease this Motion, by the means of which such Separations are effected, (when the violence or impetuosity of the Circulation do's not obstruct them) and this, biting, bitter and aromatic Medicines, and all vinous and spirituous Liquors will perform.

It is true, it may be question'd whether Physicians have discover'd any one natural Substance, that hath an immediate Power of hindring, lessening, or suppressing this natural and intestine Motion or Agitation

on of the minute and constituent Parts of the Blood ; by reason that Motion is connatural to it, as it is *a Fluid*, and some degrees of Warmth or Heat, (the natural effect of that Motion) essential to it, so long as it circulates in our Veins, that is so long as the Body hath Life ; yet it is certain, these præternatural, and violent intestine Motions (if they are not continued by the means of such Substances as will encrease them) will gradually of themselves decline : However the deficiency of our knowledge in this particular (if in truth it is any, for could we suppress or destroy this intestine Motion we must by that alter the very Nature of our Blood,) is of no great Moment as to the continuance of our Lives, since Life cannot be destroy'd because it is not seated in it, altho' it is continued by that Motion ; it is true Life may be extinguish'd by the Separations from that Motion, but that is, because the Circulation is often hindred by such.

The Circular, or Animal Motion of the Blood, in the continuance of which Life consists, may be lessened or encreas'd, hindred or assisted by the help of Medicines ; but the better to comprehend the manner of performing this, we must consider that a Life is founded in this Motion, so its contrary, Death, is in the Cessation of it, and

that we call *Sickness*, or *Diseases*, are but steps or approaches in our Natures towards Death; for by such this vital Motion is chang'd, and at last finally suppress'd. And that the Suppression or Cessation of this Vital or Circular Motion may be effected by two different ways, *viz.* either from a deficiency in impulse; for it is most manifest that Motion is not Natural, but is made, or receiv'd from some other Body: Or secondly, by some unfitness in the Blood it self to be whirled about in Circulation. The first of these may again proceed either from some defect or fault in the Instruments Nature uses for giving it the Impulse, *viz.* Heart or Arteries; or from some fault in the *Spirits*, or what gives Motion to those Organs.

The second may again be occasion'd by the admixture of some hurtful or disagreeable Substances, which breaks or someways alters the Crasis of the Blood, and so renders it unfit for this Motion; and this may be receiv'd either by the Stomach or with our Breath, or by some other Apertures of the Body, or may be gradually made in the Blood it self. And each of these by a due application of Thought may be distinguish'd from the other.

The first of these that proceed from any unfitness in the Heart or Arteries to give the due impulse or any default in the Vessels,

whereby it is hinder'd in its progression, may likewise be very different, but none of these, as being Organical defaults, ordinarily admitting of any immediate relief by Medicines, for Reasons already urg'd, are part of our present Consideration : But when this defect of Impulse is occasion'd by the *Spirits*, it is to be remedied, by bettering, altering or quieting *them* : But in attempting this, we ought to distinguish between Disorders that proceed from only an Irregularity of their Motions, and such as proceed from a depravity of their Natures ; which may be clearly done, if we but heedfully attend to the full Circumstances of the *Diseas'd* ; for as the first Case requires the use of such Medicines, as have an immediate power someways to affect the *Spirits*, and so may alter, hinder, or quiet and compose such Disorders ; as we plainly see is often perform'd in such Cases as are term'd Hysterical, &c. where the Pulse is marvelously disorder'd : So in the second Case, the use of such Medicines is only trifling, since those exerting their Powers immediately upon the *Spirits*, *viz.* by the means of the fibrous branches of the Nerves, in which the *Spirits* reside, and upon which the Medicine operates, do not seem to better or Alter their Natures ; because they being prepared by the Brain out of the Blood, can

only be better'd or alter'd that way : As we may plainly observe from the vanishing of such Symptoms as are made by the *Spirits*, in *those Diseases* we call *Feavers*, upon the reducing the Blood to its natural Temper.

The Second or other Causes of hindring and perplexing the Circulation, are in the Blood it self; which may arise either from the admixture of somewhat with the Blood; and this may enter with our Nourishment, as sometimes hurtful and poysonous Substances do; or it may be drawn in with our Breath, as it is probable happens in such Cases as are term'd Malignant, which are mostly Contagious; or they enter by some other Apertures of our Bodies, as in Venereal Cases; or the very Natures of our Blood may be by some internal means so alter'd, as often happens in such Diseases as are term'd Chronical: Or it may be so alter'd by somewhat external to it, as it sometimes happens by the Changes in Air, from whence such Diseases may be caus'd, as are usually ascrib'd to our taking Cold; or are, what it is probable proceed from some sudden Alteration in the Blood it self as most Inflammations it is likely do; Of the first sort of these, I mean when some hurtful or poysonous substance is admitted into the Blood; it is plain it must either be separated or expell'd the Blood, or its Nature alter'd

alter'd or destroy'd in it, before the Blood can be deliver'd from its hurtful Effects ; and the separating hurtful or disagreeable Parts from the Blood, or from any *other Fluid*, is perform'd by the intestine Motion of the minute Parts of either *Blood* or *Fluid*, by reason it is by that Motion, by which the homogeneous or uniform, congregate or run together, and that is not to be done, but by the displacing or dividing from such as are not ; But in that the Blood is hindred from performing this, (by the Circulation, and by the smallness of its Vessels) in such Methods as are common to other *Fluids* ; and yet such is its Nature as to require the discharge of disagreeable Parts, wherefore *secretory Vessels and other Passages*, are ordain'd for this purpose, and by such our Bloods do it. The most then Medicine, consider'd as a natural Substance, and so operating in a natural way, can be conceiv'd to do for this purpose, is only to intend this intestine Motion, by which separations are made (for as for abating the impetuosity of the Circulation, by which the Separations are hindred, it is not now under our Enquiry). For it seems an unreasonable Hope, for Physicians to expect any such specifick or singular Virtues in Medicines (that are only natural Substances) as that they should have a Power, or rather know-

ledge to select, chuse out, or drive away, hurtful or poysonous Particles from the Blood; this being to ascribe to blind Matter Powers which it hath not: But waving Speculations, it is obvious Medicines have no such Power, in that they so often fail in the producing these Effects; or at least, that Physicians have not discover'd Medicines that are endued with such Powers. The altering or destroying these malignant Particles in the Blood, by such Methods as have been used, seems clogg'd with too many difficulties to be readily admitted; for if we do but consider the quantity of Blood a Human Body contains, and how it is made of differing and unlike Parts, we cannot easily conceive how a few Grains of Medicine, if all receiv'd into the Blood, should be so divided, as that they should suddenly so unite with, and only alter or destroy such malignant Particles as are dispersed through the whole Mass; besides by their uniting with them, Bulk must be increas'd, and so they may become unfit to pass the small meandering Vessels in Circulation: But Physicians have not seem'd by their practice, to have aim'd at the altering or destroying *These* in the Blood, but at the discharging *Them*, as appears in that the most celebrated Alexipharmicks are esteem'd Sudorificks.

But

But notwithstanding the deficiency of our Knowledge in these Particulars, and our Vanity in expecting Effects from natural Substances, in any other than natural ways ; yet as it is certain we want not opportunities to discover, what thus occasions alterations, disorders or hindrances in the Circulation ; so we are not deficient in Medicines that have a natural Power to assist and help us, in the remedying, or at least in withstanding the dreadful Effects that will proceed from *these* ; for notwithstanding we know not how directly to separate or destroy such malignant Parts, yet we can assist the Blood, to withstand the deadly Effects, that would be produced by *These* ; for by invigorating the Circulation, the Mixture or Crasis is the better preserv'd ; and by hindring the constituent Parts of it from breaking, dividing and seceding from each other, it is the better befitted for running and passing thorough its proper Vessels : The first of these are perform'd by *Aromatick Bitters*, and *Vinous* and *Spiritu-ous Liquors* ; the last by Testaceous Powders, Astringents, &c. varied and alter'd according to Indications : But to what purpose the fashionable Method of skinning Bodies by Blisters, to discharge by them what as yet is not separated, is used, I cannot I must acknowledge apprehend ; it is true when such Parts are separating they may sometimes be of use.

When the Circulation is disorder'd, hinder'd or weakned, from any flow and internal depravity gradually acquir'd in the Blood it self, as often happens in Chronick Diseases, that is usually restor'd by *Steel*; unless this is occasion'd by a faultiness in the Organical Parts, such as Liver, Lungs, Spleen, &c. then *Steel* or any other Remedies can be but of small Efficacy.

When this Circulation is alter'd by any sudden Changes from without, as often happens, when such Symptoms as are called Inflammations are form'd, bleeding seems to be the only Remedy to relieve it, because such are form'd by its Turgescentcy or Quantity, which are abated by that.

However altho' our Experience teaches us, that there are some Medicines that will intend the Circulation, and by doing that, are often helps to preserve our Lives; yet the same Experience will inform us, that these Medicinal Helps are not always sufficient to defend our Bloods against the direful Effects of malignant Particles, which will, maugre all the assistance of Medicines, so break and divide the mixture of the Blood, as thereby to hinder its progressive Motion, and so extinguish our Lives.

In short, all that Medicines consider'd as natural Substances can be conceiv'd to do in our Bloods, is but some ways to alter the natural

natural and intestine Motions of the minute Parts of the Blood, by which its Nature or internal Constitution, and thereby the Powers of producing sensible Qualities in us may be alter'd ; but whilst the Blood runs in our Veins, we are excluded from the knowledge of such Qualities ; and all that we can perceive of this Alteration in the Blood, appears either by the Separations that are made from it, or by the Motions of it ; and these Separations being Essential to our Bloods, are some of them of real use for the very continuing of our Lives, (as may be instanc'd in our Spirits) ; And yet these being thus made out of the Blood, by the Means of Organs prepar'd by Nature for that end, which are only passive in the Separation, will clearly partake of the Nature of our Bloods ; when that therefore is disorder'd, *These* must be deprav'd, that is, they will not be as they were when the Blood was under no disorder ; and this is not peculiar to such separations that are of real use to Life, but also to such as discharge superfluous and Excrementitious Parts ; for notwithstanding these separations are continued when the Blood is disorder'd, yet such are not as they used to be in a State of Health. If the Blood then do's not discharge its nocent Parts by these ways, to what purpose should we endea-

your to encrease them, since such hurtful Parts are not expell'd by them; and yet this seems to have chiefly been intended in most acute Diseases, *viz.* to encrease these Discharges; and when this was not to be done by natural ways, *viz.* Sweating, Urine, &c. they have usually attempted it, by making præternatural ones, as appears by the so frequent use of Blisters: It is true since the use of the so celebrated Bark hath prevail'd, they have sometimes declin'd from that practice; for before that, and in many Cases since, Vomiting, Bleeding, Sweating, Blistering, or Glystering, seem to have been the main business in practice; as if they suppos'd all was to be done by Evacuation (and that as may be reasonably conjectured, from what appears in the Books writ upon those subjects, in which the uses of these discharges are so promiscuously recommended) the Authors had not much regard whether the Bloods of the diseased were disposed to throw off the nocent Parts by any of these ways; but only as they suppos'd the general Nature of the Disease was to be discharg'd by these passages.

It would be a happiness to Mankind could Physicians discover any Medicines that would expel or destroy such malignant Particles, that like the destroying Angels sweep away Thousands: But this seems
not

not likely to be obtain'd, in that the expelling such nocent or poysonous Parts, is not properly the province of Medicine; but of the Blood it self, as hath been already shew'd ; besides, supposing there were Medicines, that were endued with such a Power, yet the choice of them would be so marvelously difficult, that they would be but of little and uncertain use ; because notwithstanding we may comprehend all the Effects produc'd by such nocent Particles, by the same Name of malignant Diseases ; yet as the Effects or Symptoms are often extremely different in such Diseases ; so the Agent or Cause that produces these may be so, which therefore may require very different Medicines to be expell'd or destroy'd by, and the choice of such Medicines as will perform this in every such particular Disease or Case, must be marvelously difficult, by reason such Medicines could not be known until tried in such Cases ; and perhaps by the time this could be tried they would be of little use to be known ; the fate of the Disease'd being determin'd, before such by trial could be often discover'd.

But Sir, what I have already writ exceeds the bounds of a Letter, and yet I have but hinted at what your desires lead me to examine, and what if Life, Health and Opportunity favour, may hereafter be enlarg'd

upon, and more fully prov'd ; for if it be but admitted, (and I think it is not to be denied) that our Bodies are a Part, and do really partake of the *common Nature of Matter*, and therefore like other natural Substances are to be work'd upon by natural ways (and if this is not admitted, I cannot conceive to what purpose Men study Physick, or use Medicines) they then will allow the operations of Medicines and the Effects produced by such to be perform'd as I have intimated. If it be objected that their operations being perform'd in the innermost recesses of our Bodies, are not to be discover'd by our gross Faculties ; I do readily acknowledge it, but then do answer, that if we but carefully observe the Vessels, Parts or Organs of our Bodies, the most used in medicinal operations, and the external and visible Effects that are produc'd by them, we may be let into such a knowledge of them, as will securely direct us in their use ; and if these things that are here offer'd had been seriously observ'd, I am of Opinion the Efficacies and Virtues of Medicines had been better understood, than as yet they seem to be ; and Men it is possible might have been as well assured of their Effects, as they are of any others, that are produced by natural Agents, in a natural way ; the
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former being incumbred with no difficulties but what are common to the latter.

If it be said that there are new *Excellencies, Perfections or Powers*, that are added or superinduced to that part of Matter, that makes a Human Body, whereby it manifestly differs from other Substances, I readily acknowledge it; but then reply, that these may easily be distinguish'd from what is common to Matter; and that these new *Excellencies or Powers*, do not destroy the common Nature of this part of Matter, that makes our Bodies, but only betters it; which I think is undeniably evident, in that our Bodies are subject to all the Affections that are common to other corporeal Substances. I shall not multiply Instances, to prove this, the thing being too notorious to be denied; however that I may not seem to neglect it, I shall produce Two.

The First is, that the very Circular Motion of our Blood, is made like Motion in other Bodies by Impulse; as evidently appears, in that it ceases upon the stopping the Motion of the Heart, which gives it.

The Second is, that all Parts of our Bodies, do like other Substances gravitate; which is prov'd not only from the weight of our whole Bodies, but also in that the moving Parts of our Bodies, I mean the *Fluids, viz. Blood or other*
 N Juices.

Juices, will, and do, always descend when they are not hindred from it, by the Circular Motion ; which appears by what may be observ'd, in any Swellings form'd by the recession of any Parts of such Juices which constantly tend downwards untill hindred in their farther descent ; and accordingly do alter according to the several Positions of the Body.

For as to those Perfections or Powers that are added to a Human Body, by which it far transcends all other Parts of Matter, they seem principally to relate to that *Noble Part we term the Mind*, of whose Nature I pretend not to write, as being no part of our present Enquiry.

If then the Operations of Medicines are perform'd in a natural way, and so may be observ'd and known, as well as those of other natural Agents, and if that *disorder'd State of a Humane Body that we term a Disease*, do's discover it self by some Symptoms or Appearances ; and if such Symptoms will direct us in the use of Medicines ; I cannot apprehend why the Reproaches of uncertainty in that Art may not be removed, that is, Physicians may discover what Diseases are in the reach of Medicine, and what are not in their Power ; what sorts of Medicines ought to be used, and what avoided ; what Cases will admit of sudden, and

and what but of slow Remedies ; and if these things may be known, Physicians need not deceive themselves or others.

To conclude, if Sir, that common and uncertain usage of writing and treating of Diseases, under *certain Kinds*, as if they partak'd of one general and common Nature ; and so all of the *same kind* were to be treated in the same Method, was but disused, and exploded as trifling and dangerous ; and if, on the contrary, Physicians would but inculcate in their Writings and Discourses that *Diseases* are only Disorders or Alterations in Humane Bodies, and therefore not to be remedied by any general use of *Methods* or *Receipts*, but by a due observance of their Symptoms or Appearances ; and if it was shew'd that some Medicines, that are in their own Natures innocent, may by an untimely, or an unskilful use become sadly hurtful ; if it was seriously taught that the whole *Mystery of Physick* was not founded in the meer knowledge of Medicines, but in the adjusting and suiting such to the Circumstances of the Diseas'd ; if Medicines were consider'd as natural Substances, and so the same Medicine was always befitted for the producing the same Effect ; and if what they really perform in a Humane Body was but distinguish'd, from what sometimes ensues upon their use :

use; if, I say, Physicians would but sedulously observe and teach these Truths, they might, I hope, deliver their profession from the Ignominy of being esteem'd expensive and uncertain: For the Outworks then of that noble and useful Art, would be too strongly defended, to be entred by bold and illiterate Empricks, the very Breaches then would be fill'd up, the Doors shut, and the weak Places fortified by which they Enter: Physick then, like the sacred Mysteries of *Ægyptian* Learning, would be only discover'd to such Votaries as have dedicated their Hours to the comprehending that Divine Art; it would not then be prostituted to the prophane Hands of ignorant Empricks, who too often sport with Mens Lives to advance their own Gain.

And now pardon, dear Sir, my plainness, but I must not ask it of you only, but of the whole Faculty, if I say. I am inclin'd to think, that notwithstanding learned Men have distinguish'd between the Empirical and Dogmatical practice of Physick, yet if that distinction is only in the General and Abstractly consider'd (and not as applied to the practice of particular Persons, wherein I freely acknowledge there always hath been a marvellous difference, between that of a learned and judicious Physician, and a bold and illiterate Emprick) there appears to have
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been no useful difference; for to assign a Reason, for Practice, that is not founded in or deduced from natural and certain Principles, is as trifling and as dangerous, as to give none: And such I apprehend have been most of those, that have hitherto been used, either to account for the Phænomena of Diseases, or to justify the use of the most celebrated Medicines, as I think do's manifestly appear from these two Observations.

First, in that there hath been such a Multitude of different Hypotheses, not one of which hath had either *Truth*, *Strength*, or *Footing*, to support it self; a clear Indication of their weakness or imperfections.

The Second is, that no Age hath produced *one Receipt, Prescription or Composition* that hath continued in full Reputation, for the Virtues, which Chance, the Author or Publisher have boastingly attributed to it; a leading Proof to induce Men to think that their operations were not observed, or understood; and yet such hath been the humour, credulity or vanity of Men, that they have not departed from the use of such trifles.

If then the Reasons used for justifying Practice, have been grounded upon false or precarious Principles; and the true use of Medicines have not been thoroughly understood both of which appear most plain,
by

by these two recited Instances, to what purpose have Men distinguish'd in practice, where there seems to have been no useful difference, both indeed being equally uncertain?

It must be acknowledg'd the learned *Dr. Willis*, made some steps toward the discovery of the Operation of Medicines; but then that great Man seems to labour too much to adjust his Observations to his own suppositions; and appears sometimes unwilling to depart from that old receiv'd Opinion, of some Medicines having particular Virtues to affect particular Parts; and accordingly labours to account for effects that seem neither Natural nor Regular, by natural ways, as might be instanc'd in what he writ concerning the different sorts of purgers, as likewise concerning Cardiacs, Pectorals, &c. by which means, altho' perhaps, he hath the better escap'd Censure, yet he hath left some obvious Truths conceal'd.

Thus, Sir, I have, according to your desire, briefly touch'd at what I take to be the occasions of the present Abuses in Physick, and have propos'd Remedies which may be applied by the very Faculty, which I imagine would in time remove them; for if Men were but perswaded of the Truth of what hath been here offer'd, they would then

then explode and expose the Contraries, from whence these Mischiefs have proceeded; there then could be no Cause for Complaints of the Intrusion of Empricks; nor of that of the Multitude, of the uncertainty and Expence of Physick. The Colledge then need not erect Dispensaries to abate the exorbitant Gain of the Apothecaries; for the Number then of Compositions would be less'n'd, which give an opportunity of encreasing the Expence (by the great losses that must be, by the decay of such) when the Efficacies and Virtues of Medicines were known; for what Motives could there be then, so promiscuously to mix, multiply and confound them; for I am really of that Opinion, that if Men would but distinguish between what are useful and what only superfluous, they would find the Latter to be sometimes as dangerous, as they are always useles, and would therefore neglect the pompous Part.

If it be objected, that the comprehending these things is extremely difficult, and that they appear too nice and Philosophical, and require too great labour of Thought and strength of Judgment, and too much Experience, and too long observation, which are not to be attain'd by every proficient in this Art; whereas the usual method of Learning this Profession is plain and easie, for it is but reading and remembring the *Catalogue of Diseases*, and the Methods and Medicines directed for the curing such and the work is done; besides it is what hath been practis'd by our Ancestours, and therefore to depart from that is to arraign their proceedings. I do freely own the truth of the Objections, but then must answer, that he that will not be at the pains to consider and inform himself

himself what Life is, and what Diseases are, that are only steps or approaches to its contrary, Death, which are only to be known, as I suppose by these or such like Methods, do's not deserve to be entrusted in the preserving the first, or in the removing the last ; the practices of our Ancestours do no ways oblige us, for altho' it is commendable to imitate their Virtues, yet it is not to persist in their Errours ; and to depart from their Methods in this particular, is no more than what we have practis'd in divers things of less moment, and therefore if not esteemed a crime in such, why should it be thought so in this.

Sir, I have now perform'd what you desir'd ; if what I have writ upon this Subject be short, or different from what you expected, you may accuse your own Judgment, in making choice of so unfitting an Instrument, for so difficult an undertaking ; for thus much I shall say in my own Excuse, that I have sincerely endeavour'd to trace Truth thorough all its Mazes without any fear of Censure or Dread of Calumny, if therefore I am mistaken, *humanum est errare*, impute it to the Weakness, but not to the Will of,

S I R,

Your most humble Servant,

P. P.

ERRATA.

PAge 10. l. 10. for *should* r. *shall*. p. 16. l. 26. f. *Themes* r. *means*. p. 25. l. 11. f. *so*. r. *too*. p. 29. l. 23. f. *them* r. *Men*. p. 37. l. 27. del. *so*. p. 65. l. 2. f. *unite* r. *unite to*. p. 87. l. 5, 6. f. *are part* r. *are no part*.